

# **Клик-химия**

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# Click Chemistry

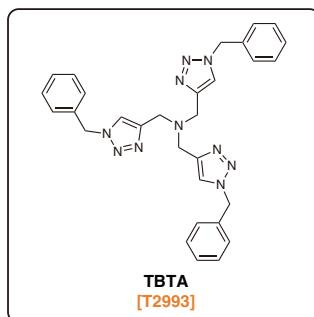
"Click Chemistry" is a term which was first described by K. B. Sharpless in 2001 to describe reactions that afford products in high yields and in excellent selectivities by carbon-hetero bond formation reactions. The term "Click" means joining molecular pieces as easily as clicking together the two pieces of a seat belt buckle. In general, the definition of click chemistry is described as follows:

1. give very high chemical yields of desired products
2. combination of readily available simple building blocks
3. generate almost no byproducts
4. simple product isolation by non-chromatographic methods
5. reaction proceeds in water, as well as in organic solvents

While there are a number of reactions that fulfill this criteria, the Huisgen 1,3-dipolar [3 + 2] cycloaddition<sup>1)</sup> of azides and alkynes has emerged as the frontrunner. In general, the 1,2,3-triazole ring is not almost oxidized or reduced, which makes it possible to strongly connect two substrates.



In the Huisgen reaction, metal catalysts, such as copper sulfate, are generally required for reaction acceleration. In especial, it has been reported that the combination of tris[(1-benzyl-1*H*-1,2,3-triazol-4-yl)methyl]amine (TBTA) [T2993] and catalysts shows excellent reactivity.<sup>2)</sup>

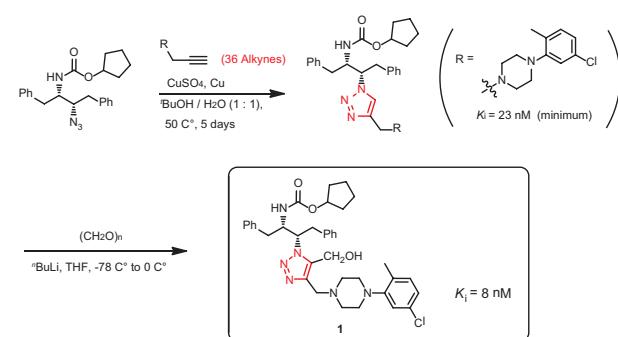


This reaction system affords desired products in almost 100% yield with no need of repurification, such as recrystallization or column chromatography. Thus, this methodology is an eco-friendly reaction. Moreover, the combination of various alkynes and azides allows it to rapidly construct large compound libraries, and 1,2,3-triazole itself exhibits various kinds of biological activities, such as anti-allergenic or anti-bacterial activities. In addition, the reaction proceeds even in water, and thus, click chemistry has been widely used in many research fields as below.

## ● Research of Various Pharmaceutical Lead Candidates

### a) Application of Anti-HIV Agent Discovery<sup>3)</sup>

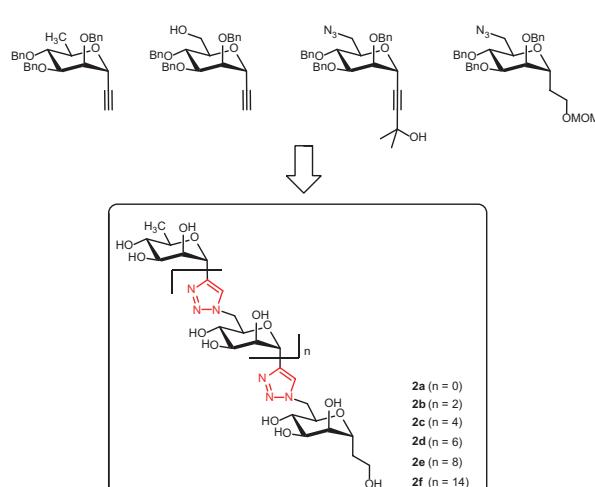
Whiting and Sharpless *et al.* have reported the synthesis of a series of 1,4-disubstituted-1,2,3-triazoles as potential candidates for HIV protease inhibitors in a combination of azide-containing fragments with a diverse array of functionalized alkyne-containing building blocks by using click chemistry. After further optimization, it was revealed that **1** has the highest activity, exhibiting 8 nM of  $K_i$  value.



### b) Research of Mycobacterium Tuberculosis

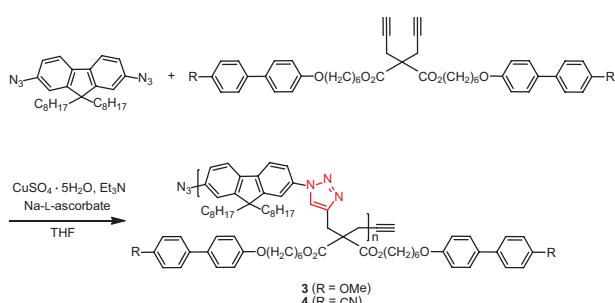
#### Cell Wall Synthetase<sup>4)</sup>

Dondoni *et al.* have reported the synthesis of a set of C-oligomannosides (**2a-f**) through click chemistry using a 1,2,3-triazole ring as the interglycosidic linker. The compounds **2a-f** inhibit mannosyltransferases, which are involved in the biosynthesis of the cell envelope of *Mycobacterium tuberculosis* cell wall synthase. Among them, the hexamer (n = 4) **2c** and octamer (n = 6) **2f** show the highest activities IC<sub>50</sub> = 0.14 and 0.22 mM, respectively.



## ● Synthesis of Functional Materials

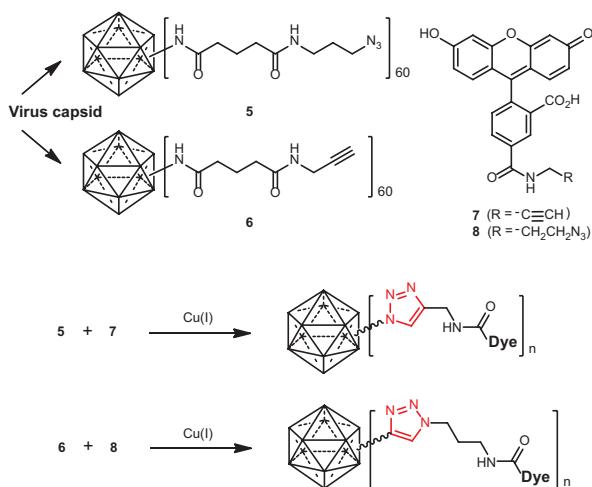
Click chemistry has been also successfully applied into polymer synthesis or material science. For example, Kang and Jin *et al.* have reported the synthesis of side-chain liquid-crystal polymers **3** and **4** by using click chemistry. According to their results, the dye-sensitized solar-cell fabricated from **3** gives a power-conversion efficiency of 4.11%.<sup>5)</sup>



## ● Bioscience

### Bioconjugation (example: surface modification of virus)<sup>6)</sup>

In general, viruses are made up of a number of protein subunits, and capsids, which enclose DNA or RNA, are formed as protein shells. In particular, in the case of spherical viruses, the capsids have an icosahedral symmetry form with sixty protein subunits. Finn and Sharpless *et al.* have reported the modification of the exterior surface of a spherical virus, *cowpea mosaic virus* by azides or alkynes, followed by the labeling of these species using fluorescein dye-azide or alkyne by click chemistry.

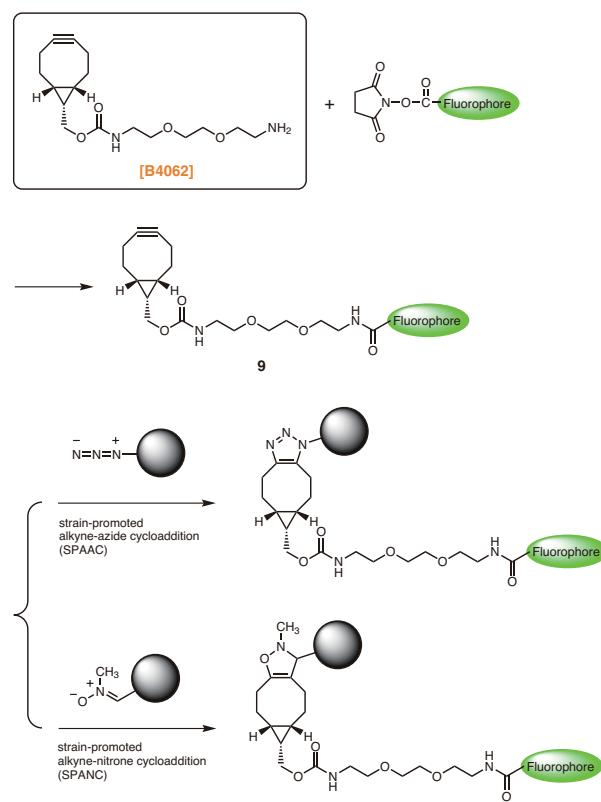


Thus, click chemistry has been widely used as a methodology of synthesizing novel molecules in a number of research fields. Other than these applications, click chemistry also has been applied in various fields, such as the synthesis of dendrimers,<sup>7)</sup> dendrons,<sup>8)</sup> calyxarenes,<sup>9)</sup> rotaxanes,<sup>10)</sup> catenanes,<sup>11)</sup> the development of chemical sensors,<sup>12)</sup> and the labeling of DNA.<sup>13)</sup>

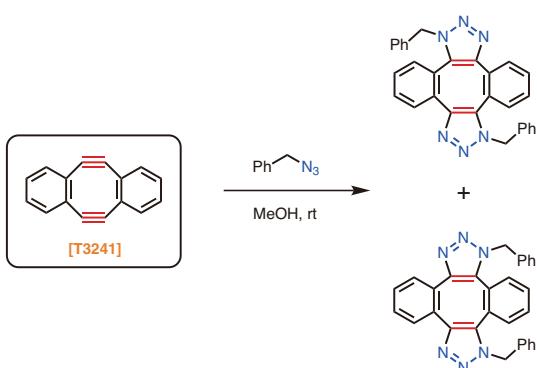
## ● Copper-free Click Reaction

As described above, click chemistry also has been used for imaging labeling and tracking labeling of biomolecules. However, the reaction is not suitable for labeling of living systems because it needs a highly-concentrated copper(I) species, thus, bioorthogonal reactions such as metal-free click chemistry also have been developed.

*N*-(1*R*,8*S*,9*s*)-bicyclo[6.1.0]non-4-yn-9-ylmethyloxycarbonyl-1,8-diamino-3,6-dioxaoctane (BCN-amine) **[B4062]** is a linker having a strained structure with cyclooctyne, and it is used for the copper-free click reaction to azides. For example, **[B4062** bonded to a fluorophore (**9**) has resulted in labeling of an azidohomoalanine-containing virus capsid protein without copper(I) species.<sup>14)</sup> In addition, **[B4062** can be applied to not only strain-promoted alkyne-azide cycloaddition (SPAAC)<sup>15)</sup> but also strain-promoted alkyne-nitrone cycloaddition (SPANC).<sup>16)</sup>



Additionally, Hosoya *et al.* have reported the “double-click reaction” applying 5,6,11,12-tetrahydrobenzo[a,e]cyclooctene **[T3241]**<sup>17)</sup> in click chemistry. The high reactivity of the two alkyne moieties allows the reaction to proceed smoothly without using metal catalysts, such as a copper salt.<sup>18)</sup>

**Metal-Free Double-click Reaction**

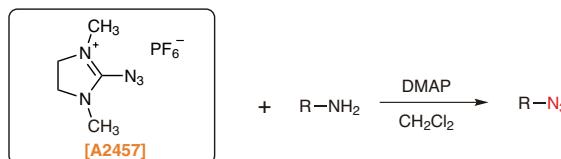
Chiba *et al.* have reported a new click reaction using *N*-succinimidyl 4-(azidosulfonyl)benzoate [**S0973**] and *N*-(1-Thioxoethyl)glycine [**T3312**.<sup>24)</sup> This reaction needs no metal ion species, and the sulfonyl azide group of **S0973** and thioamide group of **T3312** reacts to form the sulfoamidine moiety. Furthermore, the reaction proceeds at room temperature in water and is applicable to the biorthogonal click reaction.

TCI offers a variety of azide and terminal acetylene compounds readily available in the field of click chemistry as below. In addition, azidation and ethynylation reagents are also listed in this brochure.

**● Azidation Reagent**

Organic azide compounds can be synthesized in a simple manner by the reaction of sodium azide with halogenated alkyl compounds, or the reaction with trifluoromethanesulfonyl azide and primary amines, however, these azide sources potentially have highly explosive character, which makes it difficult to handle. 2-Azido-1,3-dimethylimidazolinium hexafluorophosphate [**A2457**], which was developed by Kitamura *et al.*, is a crystalline diazotransfer reagent having high thermal stability and low explosibility. The differential scanning calorimetry (DSC) experiment of **A2457** has revealed that the exothermic decomposition temperature was approximately 200 °C. Moreover, **A2457** has tested negative for the impact and friction-sensitivity tests.<sup>19)</sup>

Under basic conditions, **A2457** reacts with several kinds of primary amines in a short time to afford the corresponding diazo compounds in high yields.<sup>20)</sup> In these reactions, the by-products can be removed by conventional extraction procedures due to their high solubility in water.

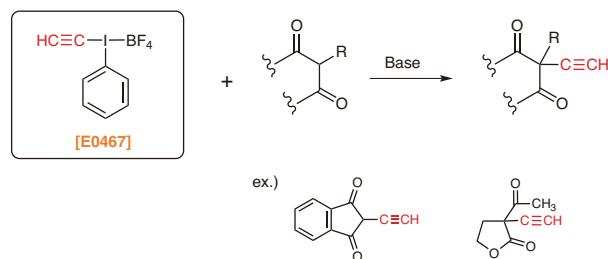


Entry	R	<b>A2457</b> (eq.)	DMAP (eq.)	Temp.	Time (h)	Yield (%)
1	Ph	1.15	1.1	rt	2.5	87
2	4-MeC <sub>6</sub> H <sub>4</sub>	1.15	1.1	rt	1.5	94
3	4-AcC <sub>6</sub> H <sub>4</sub>	1.15	3	50 °C	5	83
4	4-O <sub>2</sub> NC <sub>6</sub> H <sub>4</sub>	2	3	50 °C	4	61
5	1-naphthyl	1.3	1.1	50 °C	1.5	92
6	PhCH <sub>2</sub> CH <sub>2</sub>	1.15	5 <sup>a)</sup>	rt	0.25	74
7	1-adamantyl	1.15	1.1	rt	0.33	71

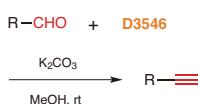
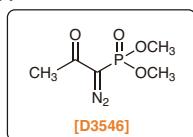
<sup>a)</sup> Et<sub>3</sub>N is used instead of DMAP.

**● Ethynylation Reagents**

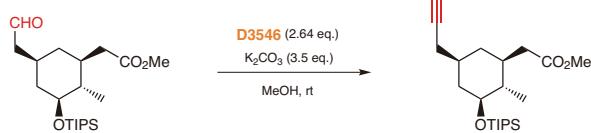
A number of ethynylation reagents have been developed for the synthesis of terminal acetylenes. For example, ethynyl(phenyl) iodonium tetrafluoroborate [**E0467**] is an electrophilic ethynylation reagent developed by Ochiai *et al.*, which reacts with active methylene compounds to afford the corresponding α-ethynylated products in high yields under mild conditions. As for other existing electrophilic ethynylation reagents, ethyl lead triacetate has been exploited, which is prepared from ethynyl(trimethyl)stannane and lead tetraacetate. However, preparation of this reagent requires the use of heavy metal compounds, which make it an unattractive procedure. The ethynylation procedure using this reagent requires careful control of the reaction conditions. The ethynylation method using **E0467** has been at the center of attention in many fields, as this method does not use highly toxic heavy metal compounds, and the reaction proceeds under mild conditions.



Additionally, dimethyl (1-diazo-2-oxopropyl)phosphonate [**D3546**] is a reagent for the synthesis of terminal alkynes, which was developed by Ohira and Bestmann *et al.*<sup>21,22)</sup> **D3546** reacts with aldehydes in the presence of potassium carbonate and methanol to give the one homologated terminal alkynes in high yields. **D3546** is widely known as the “Ohira-Bestmann reagent” after its discoverers and the reaction proceeds in mild conditions without using strong bases.

(Application 1)<sup>22)</sup>

$R\text{-CHO}$	Product	Yield (%)
Cl-phenyl-CHO	Cl-phenyl-C≡C	97
OHC-phenyl-CHO	OHC-phenyl-C≡C	74
OHC-thiophenyl-CHO	OHC-thiophenyl-C≡C	80

(Application 2)<sup>23)</sup>

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# The list of products

We introduce our products according to their application.

<b>Metal Catalysts, Ligands</b>	7
<b>Azides</b>	7
Organic Azides	7
PEG Azides	8
Sugar Azides	9
<b>Terminal Alkynes</b>	10
Aliphatic Hydrocarbons	10
Aromatic Hydrocarbons	10
Alcohols	12
Carboxylic Acids & Esters	13
Amines	13
Heterocyclic Compounds	14
Polyethylene Glycols (PEG)	14
Others	15
<b>Cu-free Click Reaction Reagents</b>	15
<b>Azidation Reagents</b>	16
<b>Ethynylation Reagents</b>	16

## Metal Catalysts, Ligands

<b>T2665</b>	5g	<b>T2666</b>	1g 5g 25g	<b>C1540</b>	5g 25g	<b>C2346</b>	25g 500g	<b>T1442</b>	1g 5g
<chem>(CH3CN)4Cu+PF6-</chem>		<chem>(CH3CN)4Cu+BF4-</chem>							
Tetrakis(acetonitrile)copper(I) Hexafluorophosphate CAS RN: 64443-05-6		Tetrakis(acetonitrile)copper(I) Tetrafluoroborate CAS RN: 15418-29-8		Copper(I) Acetate CAS RN: 598-54-9		Copper(II) Acetate Monohydrate CAS RN: 6046-93-1		Copper(I) Trifluoromethane-sulfonate Benzene Complex CAS RN: 42152-46-5	
<b>C3042</b>	200mg	<b>T2993</b>	1g 5g	<b>C2312</b>	1g 5g	<b>C1952</b>	25g 300g	<b>R0074</b>	1g 5g
Chloro(pentamethylcyclopentadienyl)ruthenium(II) Tetramer CAS RN: 113860-07-4		Tris[(1-benzyl-1H-1,2,3-triazol-4-yl)methyl]amine (TBTA) CAS RN: 510758-28-8		Copper(I) 2-Thiophenecarboxylate CAS RN: 68986-76-5		Copper(I) Cyanide CAS RN: 544-92-3		Ruthenium(III) Chloride Hydrate CAS RN: 14898-67-0	
<b>B0989</b>	1g	<b>T3170</b>	200mg 1g	<b>T3171</b>	200mg	<b>H0149</b>	25g 250g		
								L-Histidine CAS RN: 71-00-1	
Bathophenanthrolinedisulfonic Acid Disodium Salt Hydrate CAS RN: 53744-42-6		Tris(2-benzimidazolylmethyl)amine (THPTA) CAS RN: 64019-57-4		THPTA CAS RN: 760952-88-3					

## Azides

<b>D5873</b>	100mg 500mg	<b>E1255</b>	5g 25g	<b>A3079</b>	1g	<b>A2729</b>	200mg
Succinimidyl 4-Azidobutyrate CAS RN: 943858-70-6		Ethyl Azidoacetate CAS RN: 637-81-0		Azidoacetic Acid CAS RN: 18523-48-3		5-Azidovaleric Acid CAS RN: 79583-98-5	
<b>A0930</b>	5g 25g	<b>A2738</b>	100mg	<b>A3365</b>	250mg	<b>H1760</b>	25mg 100mg
4-Azidobenzoic Acid CAS RN: 6427-66-3		3-Azidopropylamine CAS RN: 88192-19-2		6-Azidohexan-1-ol CAS RN: 146292-90-2		N-Succinimidyl 4-Azidobenzoate CAS RN: 53053-08-0	
<b>A2290</b>	100mg 1g	<b>A2674</b>	1g	<b>S0860</b>	10mg	<b>S0952</b>	200mg 1g
4-Azidosalicylic Acid CAS RN: 66761-27-1		4-Azido-2,3,5,6-tetrafluorobenzoic Acid CAS RN: 122590-77-6		N-Succinimidyl 5-Azido-2-nitrobenzoate CAS RN: 60117-35-3		N-Succinimidyl 4-Azido-2,3,5,6-tetrafluorobenzoate CAS RN: 126695-58-7	
<b>A2791</b>	200mg 1g	<b>B3790</b>	10mg	<b>D1606</b>	25g	<b>A2942</b>	25mg 100mg
1-(Azidomethyl)pyrene CAS RN: 1006061-57-9		Bis[2-(4-azidosalicylamido)ethyl] Disulfide CAS RN: 199804-21-2		Disodium 4,4'-Diazidostilbene-2,2'-disulfonate Tetrahydrate CAS RN: 2718-90-3		N3-dU CAS RN: 26929-65-7	
<b>A2052</b>	1g 5g						
						3'-Azido-3'-deoxythymidine CAS RN: 30516-87-1	

## Click Chemistry

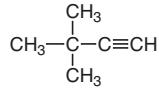
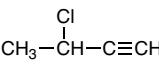
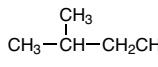
<b>A3020</b>	250mg	
		4-Azido-N-Fmoc-L-homoalanine CAS RN: 942518-20-9
<b>A3023</b>	250mg	
		6-Azido-N-Fmoc-L-norleucine CAS RN: 159610-89-6
<b>A3129</b>	50mg 200mg	
		cis-4-Azido-N-Boc-L-proline CAS RN: 132622-65-2
<b>A2524</b>	100mg	
		N-(3-Azidopropyl)biotinamide CAS RN: 908007-17-0
<b>A2474</b>	100mg	
		2-Azido-1,3-bis((2,2-dimethyl-1,3-dioxan-5-yl)oxyl)propane CAS RN: 1392500-07-0
<b>T1184</b>	1g 5g	
		Trimethylsilylmethyl Azide CAS RN: 87576-94-1
<b>A2783</b>	100mg	
		(11-Azidoundecyl)-trimethoxysilane CAS RN: 334521-23-2
<b>B3694</b>	100mg	
		(2S,3S,5R,6R)-5,6-Bis(azidomethyl)-2,3-dimethoxy-2,3-dimethyl-1,4-dioxane CAS RN: 1585236-34-5
<b>A2457</b>	5g 25g 250g	
		2-Azido-1,3-dimethylimidazolinium Hexafluorophosphate CAS RN: 1266134-54-6
<b>A2523</b>	100mg	
		Biotin-PEG <sub>3</sub> -Azide CAS RN: 875770-34-6
<b>B6265</b>	1set	
		Biotin-PEG <sub>3</sub> -Azide (2mgx5) CAS RN: 875770-34-6
<b>A2914</b>	200mg	
		N-[4-(Azidosulfonyl)-benzoyl]ethylenediamine Trifluoroacetate
<b>A3306</b>	50mg 250mg 1g	
		3-Azido-7-hydroxycoumarin CAS RN: 817638-68-9
<b>A3432</b>	1g	
		4-Azido-2,3,5,6-tetrafluoro-N-(2-methacrylamidoethyl)-benzamide CAS RN: 2361935-10-4
<b>B1110</b>	5g 25g	
		2,6-Di(4-azidobenzal)-cyclohexanone (wetted with ca. 30% Water) CAS RN: 20237-98-3
<b>PEG Azides</b>		
<b>A2728</b>	25mg 100mg	
		Methyl-PEG <sub>4</sub> -Azide CAS RN: 606130-90-9
<b>A2727</b>	25mg 100mg	
		Methyl-PEG <sub>8</sub> -Azide CAS RN: 869718-80-9
<b>M3049</b>	25mg	
		Methyl-PEG <sub>12</sub> -Azide CAS RN: 2170098-29-8
<b>M3050</b>	25mg 100mg	
		Methyl-PEG <sub>24</sub> -Azide
<b>A2294</b>	100mg	
		PEG <sub>4</sub> -Azide CAS RN: 86770-67-4
<b>A2500</b>	100mg	
		PEG <sub>5</sub> -Azide CAS RN: 86770-68-5
<b>A3130</b>	250mg 1g	
		Azido-PEG <sub>2</sub> -Amine-Tos-OH CAS RN: 2173092-98-1
<b>A2363</b>	200mg 1g 5g	
		Amino-PEG <sub>3</sub> -Azide CAS RN: 134179-38-7
<b>A3004</b>	50mg 250mg	
		Amino-PEG <sub>3</sub> -Azide CAS RN: 951671-92-4
<b>A3007</b>	50mg 250mg	
		Amino-PEG <sub>11</sub> -Azide CAS RN: 1800414-71-4
<b>A3224</b>	100mg	
		Azido-PEG <sub>2</sub> -acetic Acid CHA Salt CAS RN: 2098500-94-6
<b>A2293</b>	1g	
		Azido-PEG <sub>3</sub> -acetic Acid CAS RN: 172531-37-2
<b>A2388</b>	25mg	
		Azido-PEG <sub>4</sub> -NHS Ester CAS RN: 944251-24-5
<b>B5546</b>	100mg	
		Biotin-PEG <sub>4</sub> -Azide CAS RN: 1309649-57-7
<b>A2523</b>	100mg	
		Biotin-PEG <sub>3</sub> -Azide CAS RN: 875770-34-6
<b>A3006</b>	100mg	
		PEG <sub>8</sub> -Azide CAS RN: 352439-36-2
<b>A3202</b>	10mg	
		Azido-PEG <sub>3</sub> -Desthiobiotin CAS RN: 1426828-06-9
<b>A3260</b>	100mg	
		Azido-PEG <sub>4</sub> -C <sub>2</sub> -carboxylic Acid CAS RN: 1257063-35-6
<b>B6081</b>	250mg	
		Bromo-PEG <sub>3</sub> -Azide CAS RN: 1446282-43-4
<b>B6265</b>	1set	
		Biotin-PEG <sub>3</sub> -Azide (2mgx5) CAS RN: 875770-34-6
<b>B6266</b>	1set	
		Biotin-PEG <sub>4</sub> -Azide (2mgx5) CAS RN: 1309649-57-7
<b>G0257</b>	1g 5g	
		2-[2-(2-Azidoethoxy)ethoxy]-ethyl 2,3,4,6-Tetra-O-acetyl-D-galactopyranoside CAS RN: 381716-33-2
<b>C3904</b>	10mg 100mg	
		CPO-PEG <sub>3</sub> -Alkyne
<b>C3948</b>	0.5mL	
		CPO-PEG <sub>3</sub> -azide (ca. 0.2 mol/L in Dimethyl Sulfoxide)

## Sugar Azides

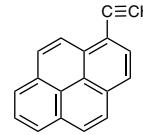
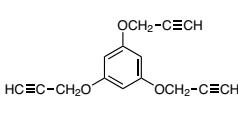
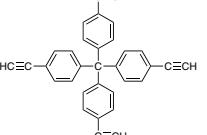
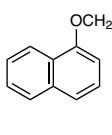
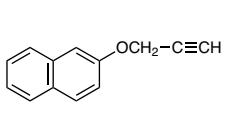
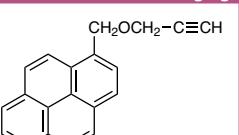
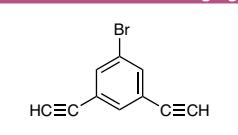
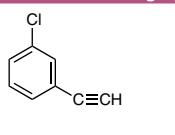
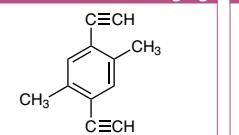
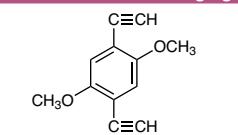
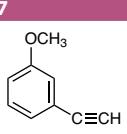
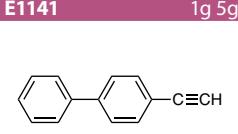
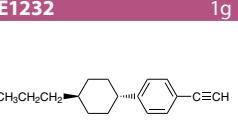
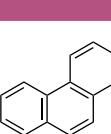
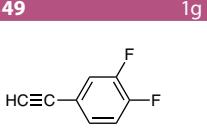
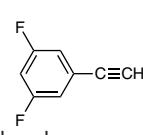
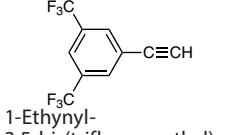
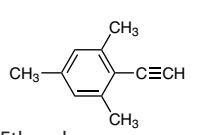
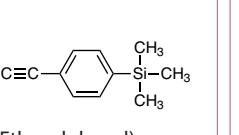
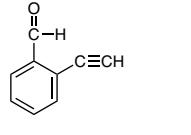
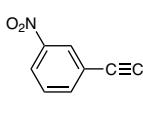
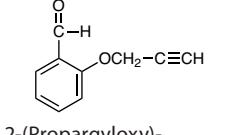
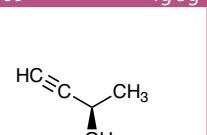
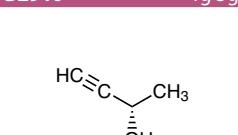
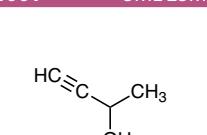
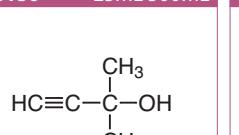
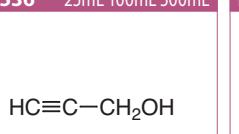
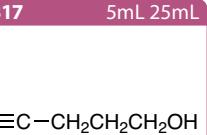
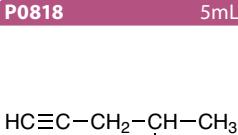
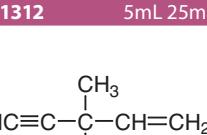
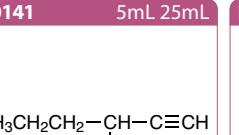
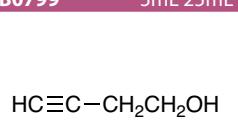
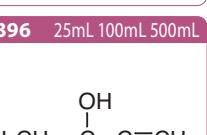
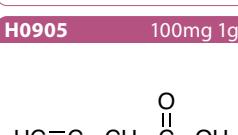
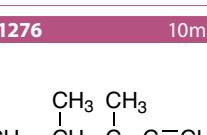
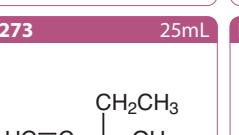
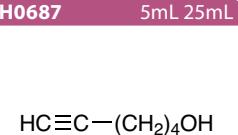
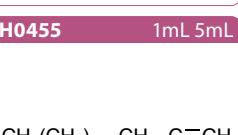
<b>A1812</b> 1g	<b>A1813</b> 1g	<b>A1811</b> 1g 5g	<b>A1616</b> 1g 5g
2-Acetamido-3-O-allyl-4,6-O-benzylidene-2-deoxy- $\beta$ -D-glucopyranosyl Azide CAS RN: 80887-27-0	2-Acetamido-3-O-benzyl-4,6-O-benzylidene-2-deoxy- $\beta$ -D-glucopyranosyl Azide CAS RN: 168397-51-1	2-Acetamido-4,6-O-benzylidene-2-deoxy- $\beta$ -D-glucopyranosyl Azide CAS RN: 6205-69-2	2-Acetamido-3,4,6-tri-O-acetyl-2-deoxy- $\beta$ -D-glucopyranosyl Azide CAS RN: 214467-60-4
<b>A1678</b> 1g 5g	<b>A1833</b> 100mg	<b>G0257</b> 1g 5g	<b>A2627</b> Please contact us.
2-Acetamido-3,4,6-tri-O-benzyl-2-deoxy- $\beta$ -D-glucopyranosyl Azide CAS RN: 214467-60-4	O-(2-Azido-4,6-O-benzylidene-2-deoxy- $\alpha$ -D-galactopyranosyl)-N-[(9H-fluoren-9-ylmethoxy)-carbonyl]-L-serine tert-Butyl Ester CAS RN: 878483-02-4	2-[2-(Azidoethoxy)ethoxy]ethyl 2,3,4,6-Tetra-O-acetyl-D-galactopyranoside CAS RN: 381716-33-2	2-Azidoethyl 2-Acetamido-2-deoxy- $\beta$ -D-galactopyranoside CAS RN: 142072-15-9
<b>A1832</b> 100mg	<b>A2172</b> 500mg	<b>A2267</b> 1g	<b>A2377</b> 1g 5g
O-(2-Azido-4,6-O-benzylidene-2-deoxy-alpha-D-galactopyranosyl)-N-[(9H-fluoren-9-ylmethoxy)-carbonyl]-L-threonine tert-Butyl Ester CAS RN: 195976-07-9	2-Azidoethyl 2-Acetamido-2-deoxy- $\beta$ -D-Glucopyranoside CAS RN: 142072-12-6	2-Azidoethyl $\beta$ -D-Glucopyranoside CAS RN: 165331-08-8	2-Azidoethyl 2,3,4,6-Tetra-O-acetyl- $\beta$ -D-glucopyranoside CAS RN: 140428-81-5
<b>D4217</b> 1mg	<b>G0330</b> 1g 5g	<b>G0309</b> 1g 5g	<b>G0373</b> 1mg
 Neu5Ac <sup>a</sup> Gal <sup>b</sup> GlcNAc <sup>c</sup> Man <sup>d</sup> Neu5Ac <sup>e</sup> Gal <sup>f</sup> GlcAc <sup>g</sup> Man <sup>h</sup> Neu5Ac <sup>i</sup> Gal <sup>j</sup> GlcAc <sup>k</sup>			
Disialylnonasaccharide $\beta$ -Ethylazide CAS RN: 1621001-68-0	Gal[2346Ac] $\beta$ (1-3)GalN <sub>3</sub> [46Bzd]- $\beta$ -MP	Gal[2346Ac] $\beta$ (1-3)GlcN <sub>3</sub> [46Bzd]- $\beta$ -MP	GalNAc $\beta$ (1-3)GlcNAc $\beta$ -Ethylazide CAS RN: 2220267-41-2
<b>G0372</b> Please contact us.	<b>G0337</b> 100mg	<b>H1333</b> Please contact us.	<b>L0237</b> Please contact us.
GlcA[3S] $\beta$ (1-3)Gal $\beta$ (1-4)GlcNAc $\beta$ (1-2)Man $\alpha$ -1-Ethylazide CAS RN: 1858224-15-3	GlcNAc $\beta$ (1-2)Man $\alpha$ -1-Ethylazide CAS RN: 1858224-15-3	HNK-1 Ethylazide	LacDiNAc Dimer Ethylazide
<b>M1637</b> 1g 5g	<b>M1617</b> 1g	<b>T1731</b> 100mg	<b>T2196</b> 200mg 1g
4-Methoxyphenyl 2-Azido-4,6-O-benzylidene-2-deoxy- $\beta$ -D-glucopyranoside CAS RN: 1430068-18-0	4-Methoxyphenyl 2-Azido-3,6-di-O-benzyl-2-deoxy- $\beta$ -D-glucopyranoside CAS RN: 1272755-25-5	1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\alpha$ -D-galactopyranose CAS RN: 67817-30-5	1,3,4,6-Tetra-O-acetyl-2-azido-2-deoxy- $\beta$ -D-glucopyranose CAS RN: 80321-89-7
<b>A3167</b> Please contact us.	<b>D5372</b> 50mg	<b>G0329</b> Please contact us.	<b>M2051</b> Please contact us.
6-Azido-6-deoxy-D-galactopyranose CAS RN: 66927-03-5	6,6'-Diazido-6,6'-dideoxytrehalose CAS RN: 18933-88-5	Gal[2346Ac] $\beta$ (1-3)GalN <sub>3</sub> - $\beta$ -MP	4-Methoxyphenyl 4-O-Acetyl-2-azido-3,6-di-O-benzyl-2-deoxy- $\beta$ -D-glucopyranoside
<b>M2696</b> 100mg	<b>M2737</b> Please contact us.	<b>S0922</b> Please contact us.	<b>M2695</b> 100mg
Neu5GcAc[1Me,478Ac,9N3]- $\beta$ -SPh CAS RN: 1195053-25-8	4-Methoxyphenyl 2-Azido-4,6-O-benzylidene-2-deoxy- $\beta$ -D-glucopyranoside CAS RN: 1340541-47-0	Sialyl Lewis X-Lactose Ethylazide	Neu5Ac[1Me,478Ac,9N3]- $\beta$ -SPh CAS RN: 219814-65-0

## Terminal Alkynes

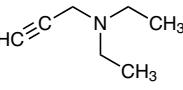
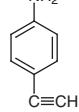
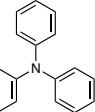
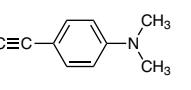
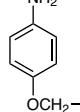
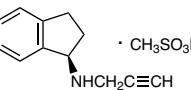
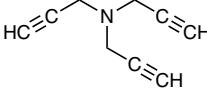
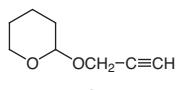
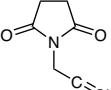
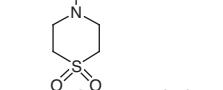
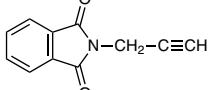
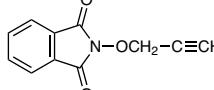
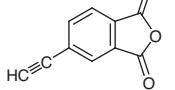
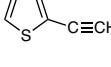
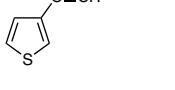
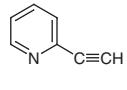
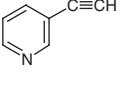
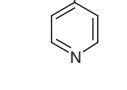
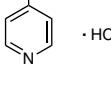
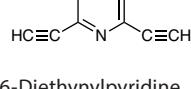
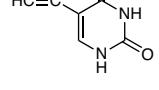
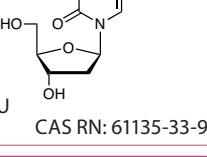
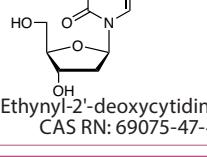
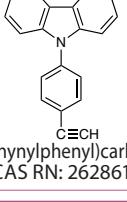
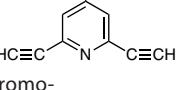
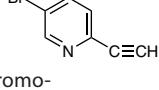
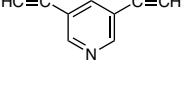
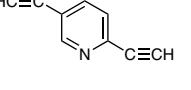
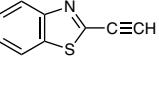
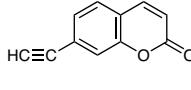
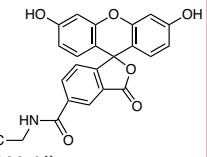
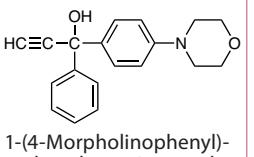
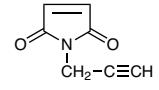
## Aliphatic Hydrocarbons

<b>P2295</b> 100mL 500mL  $\text{CH}_3-\text{C}\equiv\text{CH}$ Propyne (ca. 5% in Tetrahydrofuran, ca. 1mol/L) CAS RN: 74-99-7	<b>C1984</b> 5g 25g   Cyclopropylacetylene CAS RN: 6746-94-7	<b>P0068</b> 5mL 25mL  $\text{CH}_3\text{CH}_2\text{CH}_2\text{C}\equiv\text{CH}$ 1-Pentyne CAS RN: 627-19-0	<b>P1881</b> 200g  $\text{CH}_3-\text{C}\equiv\text{CH}$ Propyne (ca. 3% in Heptane) CAS RN: 74-99-7	<b>P2152</b> 100mL 500mL  $\text{CH}_3-\text{C}\equiv\text{CH}$ Propyne (ca. 4% in N,N-Dimethylformamide, ca. 1.0mol/L) CAS RN: 74-99-7
<b>H0485</b> 1g 5g  $\text{HC}\equiv\text{C}-\text{CH}_2\text{CH}_2-\text{C}\equiv\text{CH}$ 1,5-Hexadiyne (stabilized with BHT) CAS RN: 628-16-0	<b>H1541</b> 1g 5g  $\text{HC}\equiv\text{C}-\text{CH}_2\text{CH}_2-\text{CH}=\text{CH}_2$ 1-Hexen-5-yne CAS RN: 14548-31-3	<b>B1114</b> 10mL 100mL   3,3-Dimethyl-1-butyne CAS RN: 917-92-0	<b>P1273</b> 25g 250g  $\text{HC}\equiv\text{CCH}_2\text{Cl}$ Propargyl Chloride (70% in Toluene, ca. 9.2mol/L) CAS RN: 624-65-7	<b>P0810</b> 5mL 25mL  $\text{HC}\equiv\text{CCH}_2\text{Cl}$ Propargyl Chloride CAS RN: 624-65-7
<b>C1195</b> 1g 5g   3-Chloro-1-butyne CAS RN: 21020-24-6	<b>H0483</b> 1mL 5mL  $\text{HC}\equiv\text{C}(\text{CH}_2)_3\text{C}\equiv\text{CH}$ 1,6-Heptadiyne CAS RN: 2396-63-6	<b>H0048</b> 25mL  $\text{CH}_3(\text{CH}_2)_4\text{C}\equiv\text{CH}$ 1-Heptyne CAS RN: 628-71-7	<b>M0271</b> 5mL   5-Methyl-1-hexyne CAS RN: 2203-80-7	<b>C1522</b> 5mL 25mL  $\text{HC}\equiv\text{C}-\text{CH}_2\text{CH}_2\text{CH}_2\text{Cl}$ 5-Chloro-1-pentyne CAS RN: 14267-92-6
<b>00147</b> 5mL 25mL  $\text{HC}\equiv\text{C}-(\text{CH}_2)_4-\text{C}\equiv\text{CH}$ 1,7-Octadiyne CAS RN: 871-84-1	<b>00050</b> 25mL 100mL  $\text{CH}_3(\text{CH}_2)_5-\text{C}\equiv\text{CH}$ 1-Octyne CAS RN: 629-05-0	<b>C1493</b> 5mL 25mL  $\text{HC}\equiv\text{C}-(\text{CH}_2)_4\text{Cl}$ 6-Chloro-1-hexyne CAS RN: 10297-06-0	<b>P1272</b> 25g 100g 500g  $\text{HC}\equiv\text{CCH}_2\text{Br}$ Propargyl Bromide (80% in Toluene, ca. 9.2mol/L) CAS RN: 106-96-7	<b>P0484</b> 25g 100g 500g  $\text{HC}\equiv\text{CCH}_2\text{Br}$ Propargyl Bromide (stabilized with MgO) CAS RN: 106-96-7
<b>N0406</b> 5mL  $\text{HC}\equiv\text{C}-(\text{CH}_2)_5-\text{C}\equiv\text{CH}$ 1,8-Nonadiyne CAS RN: 2396-65-8	<b>N0301</b> 5mL  $\text{CH}_3(\text{CH}_2)_6-\text{C}\equiv\text{CH}$ 1-Nonyne CAS RN: 3452-09-3	<b>B3242</b> 5g  $\text{HC}\equiv\text{CCH}_2\text{CH}_2\text{Br}$ 4-Bromo-1-butyne CAS RN: 38771-21-0	<b>D1724</b> 1mL 5mL  $\text{CH}_3(\text{CH}_2)_3-\text{C}\equiv\text{C}-\text{CH}_2\text{CH}_2-\text{C}\equiv\text{CH}$ 1,5-Decadiyne CAS RN: 53963-03-4	<b>D1326</b> 5mL  $\text{HC}\equiv\text{C}-(\text{CH}_2)_6-\text{C}\equiv\text{CH}$ 1,9-Decadiyne CAS RN: 1720-38-3
<b>D0037</b> 5mL 25mL  $\text{CH}_3(\text{CH}_2)_7-\text{C}\equiv\text{CH}$ 1-Decyne CAS RN: 764-93-2	<b>U0033</b> 5mL  $\text{CH}_3(\text{CH}_2)_8-\text{C}\equiv\text{CH}$ 1-Undecyne CAS RN: 2243-98-3	<b>D0997</b> 5mL 25mL  $\text{CH}_3(\text{CH}_2)_9-\text{C}\equiv\text{CH}$ 1-Dodecyne CAS RN: 765-03-7	<b>T0761</b> 5mL 25mL  $\text{CH}_3(\text{CH}_2)_{11}-\text{C}\equiv\text{CH}$ 1-Tetradecyne CAS RN: 765-10-6	<b>P0356</b> 5mL  $\text{CH}_3(\text{CH}_2)_{12}\text{C}\equiv\text{CH}$ 1-Pentadecyne CAS RN: 765-13-9
<b>H0433</b> 5mL  $\text{CH}_3(\text{CH}_2)_{13}\text{C}\equiv\text{CH}$ 1-Hexadecyne CAS RN: 629-74-3	<b>H0440</b> 1g  $\text{CH}_3(\text{CH}_2)_{14}\text{C}\equiv\text{CH}$ 1-Heptadecyne CAS RN: 26186-00-5	<b>00128</b> 1mL 5mL  $\text{CH}_3(\text{CH}_2)_{15}\text{C}\equiv\text{CH}$ 1-Octadecyne CAS RN: 629-89-0	<b>E1178</b> 5mL   1-Ethynyl-1-cyclohexene CAS RN: 931-49-7	<b>Aromatic Hydrocarbons</b>

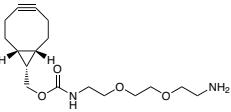
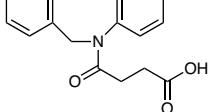
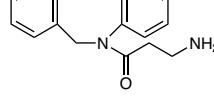
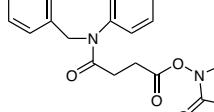
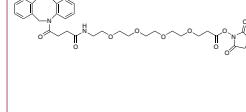
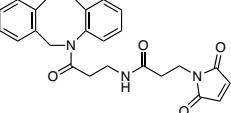
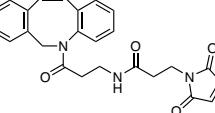
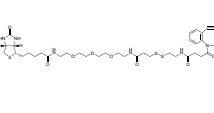
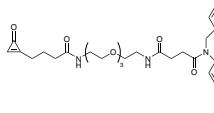
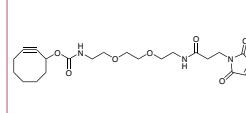
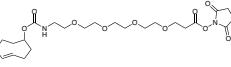
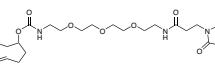
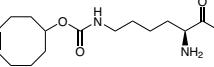
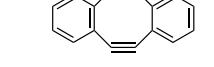
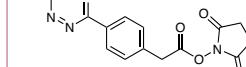
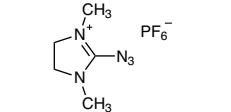
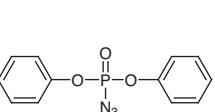
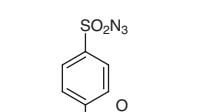
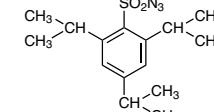
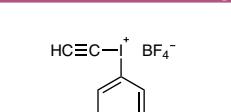
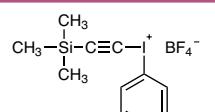
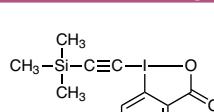
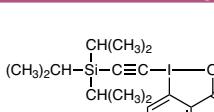
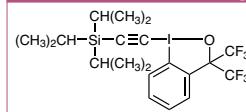
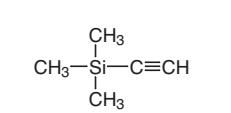
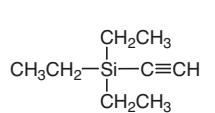
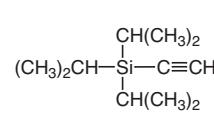
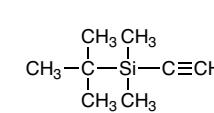
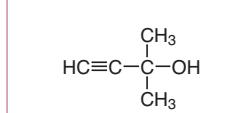
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<b>A1122</b>	5g 25g		3-Ethynylaniline CAS RN: 54060-30-9	<b>E0654</b>	5g		1-Ethynyl-2-fluorobenzene CAS RN: 766-49-4	<b>F0470</b>	1g 5g		1-Ethynyl-4-fluorobenzene CAS RN: 766-98-3	<b>D2496</b>	1g 5g		1,3-Diethynylbenzene CAS RN: 1785-61-1	<b>D2151</b>	1g 5g		1,4-Diethynylbenzene CAS RN: 935-14-8
<b>E0987</b>	1g		4-Ethynylbenzaldehyde CAS RN: 63697-96-1	<b>E0749</b>	5g 25g		1-Ethyl-4-ethynylbenzene CAS RN: 40307-11-7	<b>P0358</b>	5mL		4-Phenyl-1-butyne CAS RN: 16520-62-0	<b>P2222</b>	5g 25g		Phenyl Propargyl Ether CAS RN: 13610-02-1	<b>E0603</b>	1g 5g 25g		4-Ethynylanisole CAS RN: 768-60-5
<b>E1172</b>	1g 5g		1-Ethynyl-2-methoxybenzene CAS RN: 767-91-9	<b>C2670</b>	1g 5g		1-Chloro-4-ethynylbenzene CAS RN: 873-73-4	<b>C2750</b>	1g 5g		2-Chlorophenylacetylene CAS RN: 873-31-4	<b>E1169</b>	1g 5g		1-Ethynyl-2,4-difluorobenzene CAS RN: 302912-34-1	<b>E0750</b>	5g 25g		1-Ethynyl-4-propylbenzene CAS RN: 62452-73-7
<b>E1041</b>	1g		4-Ethynylbenzoic Acid CAS RN: 10602-00-3	<b>E1029</b>	1g 5g		4-Ethoxypyrenylacetylene CAS RN: 79887-14-2	<b>T2760</b>	1g 5g		1,3,5-Triethynylbenzene CAS RN: 7567-63-7	<b>E0933</b>	100mg		2-Ethynylnaphthalene CAS RN: 2949-26-0	<b>D4878</b>	1g 5g		1,5-Diethynyl-2,4-dimethylbenzene CAS RN: 1379822-09-9
<b>E1078</b>	1g		5-Ethylnyl-1,2,3-trifluorobenzene CAS RN: 158816-55-8	<b>B2301</b>	5g 25g		1-Butyl-4-ethynylbenzene CAS RN: 79887-09-5	<b>P2339</b>	200mg 1g		4-(Propargyloxy)benzaldehyde CAS RN: 5651-86-5	<b>E1175</b>	200mg 1g		1-Ethynyl-3,5-dimethoxybenzene CAS RN: 171290-52-1	<b>E0626</b>	1g 5g		1-Ethynyl-4-(phenylethynyl)benzene CAS RN: 705-31-7
<b>E0563</b>	5g 25g		1-Ethynyl-4-pentylbenzene CAS RN: 79887-10-8	<b>B3701</b>	1g 5g		1-Bromo-4-ethynylbenzene CAS RN: 766-96-1	<b>B4608</b>	1g 5g		2-Bromophenylacetylene CAS RN: 766-46-1	<b>E1130</b>	200mg 1g		4-Ethynylbenzenesulfonamide CAS RN: 1788-08-5	<b>E1170</b>	1g 5g		1-Ethynyl-4-(trifluoromethoxy)benzene CAS RN: 160542-02-9
<b>B4521</b>	200mg 1g		1,3-Bis(2-propynyl)benzene CAS RN: 26627-36-1	<b>B4607</b>	1g 5g		1,4-Bis(2-propynyl)benzene CAS RN: 34596-36-6	<b>E0564</b>	5g 25g		1-Ethynyl-4-hexylbenzene CAS RN: 79887-11-9	<b>D4233</b>	200mg 1g		4,4'-Diethynylbiphenyl CAS RN: 38215-38-2	<b>E0967</b>	200mg 1g		1-Ethynyl-4-(phenylethynyl)biphenyl CAS RN: 92866-00-7

<b>E0939</b> 200mg 1g  1-Ethynylpyrene CAS RN: 34993-56-1	<b>T3135</b> 200mg 1g  1,3,5-Tris(2-propynyloxy)benzene CAS RN: 114233-80-6	<b>T3151</b> 100mg 1g  Tetrakis(4-ethynylphenyl)methane CAS RN: 177991-01-4	<b>P2227</b> 1g 5g  1-(2-Propynyloxy)naphthalene CAS RN: 18542-45-5	<b>P2190</b> 200mg 1g  2-(2-Propynyloxy)naphthalene CAS RN: 20009-28-3
<b>P2226</b> 200mg 1g  1-[(2-Propynyloxy)methyl]pyrene CAS RN: 1115084-83-7	<b>B5444</b> 200mg 1g  1-Bromo-3,5-diethynylbenzene CAS RN: 144001-08-1	<b>C3099</b> 1g 5g  1-Chloro-3-ethynylbenzene CAS RN: 766-83-6	<b>D5314</b> 200mg 1g  1,4-Diethynyl-2,5-dimethylbenzene CAS RN: 75867-45-7	<b>D5315</b> 200mg 1g  1,4-Diethynyl-2,5-dimethoxybenzene CAS RN: 74029-40-6
<b>E0627</b> 1g 5g  3-Ethynylanisole CAS RN: 768-70-7	<b>E1141</b> 1g 5g  4-Ethynylbiphenyl CAS RN: 29079-00-3	<b>E1232</b> 1g  1-Ethynyl-4-( <i>trans</i> -4-propylcyclohexyl)-benzene CAS RN: 88074-73-1	<b>E1301</b> 1g 5g  9-Ethynylphenanthrene CAS RN: 32870-98-7	<b>E1349</b> 1g  4-Ethynyl-1,2-difluorobenzene CAS RN: 143874-13-9
<b>E1352</b> 1g 5g  1-Ethynyl-3,5-difluorobenzene CAS RN: 151361-87-4	<b>E1353</b> 1g 5g  1-Ethynyl-3,5-bis(trifluoromethyl)benzene CAS RN: 88444-81-9	<b>E1361</b> 1g 5g  2-Ethynyl-1,3,5-trimethylbenzene CAS RN: 769-26-6	<b>E1362</b> 1g 5g  (4-Ethynylphenyl)-trimethylsilane CAS RN: 16116-92-0	<b>E1420</b> 1g  2-Ethynylbenzaldehyde CAS RN: 38846-64-9
<b>N1148</b> 200mg 1g  3-Nitrophenylacetylene CAS RN: 3034-94-4	<b>P2338</b> 200mg 1g  2-(Propargyloxy)-benzaldehyde CAS RN: 29978-83-4	<b>Alcohols</b>		
<b>B2909</b> 1g 5g  (R)-(-)-3-Butyn-2-ol CAS RN: 42969-65-3	<b>B2910</b> 1g 5g  (S)(-)-3-Butyn-2-ol CAS RN: 2914-69-4	<b>B1001</b> 5mL 25mL  3-Butyn-2-ol CAS RN: 2028-63-9	<b>M0180</b> 25mL 500mL  2-Methyl-3-butyn-2-ol CAS RN: 115-19-5	<b>P0536</b> 25mL 100mL 500mL  2-Propyn-1-ol CAS RN: 107-19-7
<b>P0817</b> 5mL 25mL  4-Pentyn-1-ol CAS RN: 5390-04-5	<b>P0818</b> 5mL  4-Pentyn-2-ol CAS RN: 2117-11-5	<b>M1312</b> 5mL 25mL  3-Methyl-1-penten-4-yn-3-ol CAS RN: 3230-69-1	<b>H0141</b> 5mL 25mL  1-Hexyn-3-ol CAS RN: 105-31-7	<b>B0799</b> 5mL 25mL  3-Butyn-1-ol CAS RN: 927-74-2
<b>M0396</b> 25mL 100mL 500mL  3-Methyl-1-pentyne-3-ol CAS RN: 77-75-8	<b>H0905</b> 100mg 1g  2-Hydroxy-3-butynoic Acid CAS RN: 38628-65-8	<b>D1276</b> 10mL  3,4-Dimethyl-1-pentyne-3-ol CAS RN: 1482-15-1	<b>E0273</b> 25mL  3-Ethyl-1-pentyne-3-ol CAS RN: 6285-06-9	<b>H0687</b> 5mL 25mL  5-Hexyn-1-ol CAS RN: 928-90-5
				<b>H0455</b> 1mL 5mL  1-Heptyn-3-ol CAS RN: 7383-19-9

<b>H1474</b>	5mL	<b>M0961</b>	5mL	<b>E0297</b>	25g 500g	<b>D0737</b>	25mL 100mL 500mL	<b>O0235</b>	1g 5g
<chem>HC#C(C)CO</chem> 6-Heptyn-1-ol CAS RN: 63478-76-2		<chem>CC(C)C#C[C]C(O)C</chem> 5-Methyl-1-hexyn-3-ol CAS RN: 61996-79-0		<chem>CC1CCCC1C#C</chem> 1-Ethynyl-1-cyclohexanol CAS RN: 78-27-3		<chem>CC(C)C(C#C)C(O)C</chem> 3,5-Dimethyl-1-hexyn-3-ol CAS RN: 107-54-0		<chem>CCCCCCC[C@H](O)C#C</chem> (S)-1-Octyn-3-ol CAS RN: 32556-71-1	
<b>O0196</b>	25mL 250mL	<b>O0445</b>	1mL 5mL	<b>H0823</b>	1g	<b>P0220</b>	1g 5g 25g	<b>D3710</b>	5g 25g
<chem>CCCCCCC[C@H](O)C#C</chem> 1-Octyn-3-ol CAS RN: 818-72-4		<chem>CC#C(C)CO</chem> 7-Octyn-1-ol CAS RN: 871-91-0		<chem>CC(C#C)C(=O)OC</chem> Ethyl 2-Hydroxy-3-butynoate CAS RN: 18418-08-1		<chem>CC#C(O)c1ccccc1</chem> 1-Phenyl-2-propyn-1-ol CAS RN: 4187-87-5		<chem>CCCCCCCCO</chem> HC≡C(CH <sub>2</sub> ) <sub>8</sub> OH	
<b>E0270</b>	25mL 500mL	<b>U0055</b>	5g	<b>E0548</b>	5g	<b>D2495</b>	5g 25g	<b>Carboxylic Acids &amp; Esters</b>	
<chem>CC(C#C)C(O)C(C)C</chem> 4-Ethyl-1-octyn-3-ol CAS RN: 5877-42-9		<chem>CC#C(C)C(C)C(O)C</chem> 10-Undecyn-1-ol CAS RN: 2774-84-7		<chem>C1=C2C=C3C=C2C=C1C(O)C3</chem> 9-Ethynyl-9-fluorenol CAS RN: 13461-74-0		<chem>CC(C#C)(O)c1ccccc1</chem> 1,1-Diphenyl-2-propyn-1-ol CAS RN: 3923-52-2			
<b>P0497</b>	5g 25g	<b>B4969</b>	200mg	<b>H0905</b>	100mg 1g	<b>H0882</b>	5g 25g	<b>U0054</b>	1g 5g
<chem>CC#C(=O)O</chem> Propiolic Acid CAS RN: 471-25-0		<chem>CC#C(=O)C(O)C</chem> 3-Butynoic Acid CAS RN: 2345-51-9		<chem>CC(C#C)C(=O)C(O)C</chem> 2-Hydroxy-3-butynoic Acid CAS RN: 38628-65-8		<chem>CC#C(=O)CCCCC(=O)O</chem> 5-Hexynoic Acid CAS RN: 53293-00-8		<chem>CC#C(=O)CCCCCC(=O)O</chem> 10-Undecynoic Acid CAS RN: 2777-65-3	
<b>H0964</b>	5g 25g	<b>P0528</b>	5mL 25mL	<b>P0529</b>	5mL 25mL	<b>P1038</b>	5g 25g	<b>H0823</b>	1g
<chem>CCCCCCCC[C@H](O)C(=O)C</chem> 2-Hexyl-4-pentynoic Acid CAS RN: 96017-59-3		<chem>CC#C(=O)OC</chem> Methyl Propiolate CAS RN: 922-67-8		<chem>CC#C(=O)OC</chem> Ethyl Propiolate CAS RN: 623-47-2		<chem>CC(C#C)(O)C(C)(C)C</chem> tert-Butyl Propiolate CAS RN: 13831-03-3		<chem>CC#C(=O)OC</chem> Ethyl 2-Hydroxy-3-butynoate CAS RN: 18418-08-1	
<b>D6072</b>	1g 5g	<b>D4616</b>	1g 5g	<b>B4007</b>	1g	<b>F0926</b>	1g	<b>P2341</b>	1g 5g
<chem>CC(C#C)(C)C(=O)OC</chem> Dimethyl 2-Propyn-1-ylmalonate CAS RN: 95124-07-5		<chem>CC(C#C)(C)C(=O)OC</chem> Diethyl 2-Propynylmalonate CAS RN: 17920-23-9		<chem>CC#C(C)C(O)C(=O)N[C@@H](C)C(=O)OBoc</chem> Boc-propargyl-Gly-OH CAS RN: 63039-48-5		<chem>CC#C(C)C(O)C(=O)N[C@@H](C)C(=O)Fmoc</chem> Fmoc-propargyl-Gly-OH CAS RN: 198561-07-8		<chem>CC#C(=O)CCCC(=O)O</chem> 4-Pentynoic Acid CAS RN: 6089-09-4	
<b>P2878</b>	5g 25g	<b>Amines</b>		<b>P0911</b>	5mL 25mL	<b>P0990</b>	5g 25g	<b>P2166</b>	1g 5g
<chem>CC#C(=O)OC</chem> Propargyl Acrylate (stabilized with BHT) CAS RN: 10477-47-1				<chem>CC#CCH2NH2</chem> Propargylamine CAS RN: 2450-71-7		<chem>CC#CCH2NH2.HCl</chem> Propargylamine Hydrochloride CAS RN: 15430-52-1		<chem>CC#C(=O)OC</chem> 2-(2-Propynyoxy)ethylamine CAS RN: 122116-12-5	
<b>D4685</b>	1mL 5mL	<b>D2794</b>	5mL 25mL	<b>D2817</b>	5mL	<b>D4964</b>	1g 5g	<b>B5925</b>	200mg 1g
<chem>CC#C(C)CN</chem> Dipropargylamine CAS RN: 6921-28-4		<chem>CC#C(C)N(C)C</chem> N,N-Dimethylpropargylamine CAS RN: 7223-38-3		<chem>CC(C#C)CCN(CC)C</chem> 3-Dibutylamino-1-propyne CAS RN: 6336-58-9		<chem>CC(C#C)C(=O)N(C)CS(=O)(=O)c1ccc(cc1)C</chem> N,N-Dipropargyl-p-toluenesulfonamide CAS RN: 18773-54-1		<chem>CC#C(=O)CCN</chem> 3-Butyn-1-amine Hydrochloride CAS RN: 88211-50-1	

D5393  3-Diethylamino-1-propyne CAS RN: 4079-68-9	E0505  4-Ethynylaniline CAS RN: 14235-81-5	E0894  4-Ethynyltriphenylamine CAS RN: 205877-26-5	E1021  4-Ethynyl-N,N-dimethylaniline CAS RN: 17573-94-3	P2224  4-(2-Propynyloxy)aniline CAS RN: 26557-78-8
R0213  Rasagiline Mesylate CAS RN: 161735-79-1	T2992  Tripropargylamine CAS RN: 6921-29-5	T3094  Tris(4-ethynylphenyl)-amine CAS RN: 189178-09-4	<b>Heterocyclic Compounds</b>	
P1624  2-(2-Propynyloxy)-tetrahydropyran CAS RN: 6089-04-9	P2191  N-(2-Propynyl)succinimide CAS RN: 10478-33-8	P2228  1-Propargylpiperazine CAS RN: 52070-67-4	P2170  4-Propargylmorpholine CAS RN: 5799-76-8	P1469  4-Propargylthiomorpholine 1,1-Dioxide CAS RN: 10442-03-2
P2329  N-Propargylphthalimide CAS RN: 7223-50-9	P2342  N-(Propargyloxy)phthalimide CAS RN: 4616-63-1	E0579  4-Ethynylphthalic Anhydride CAS RN: 73819-76-8	E0915  2-Ethynylthiophene CAS RN: 4298-52-6	E0892  3-Ethynylthiophene CAS RN: 67237-53-0
E0340  2-Ethynylpyridine CAS RN: 1945-84-2	E0560  3-Ethynylpyridine CAS RN: 2510-23-8	E0561  4-Ethynylpyridine CAS RN: 2510-22-7	E1043  4-Ethynylpyridine Hydrochloride CAS RN: 352530-29-1	D5097  2,6-Diethynylpyridine CAS RN: 75867-46-8
E1096  5-Ethynyluracil CAS RN: 59989-18-3	E1057  EdU CAS RN: 61135-33-9	E1093  5-Ethynyl-2'-deoxycytidine CAS RN: 69075-47-4	E1055  9-(4-Ethynylphenyl)carbazole CAS RN: 262861-81-4	B4921  4-Bromo-2,6-diethynylpyridine CAS RN: 1374038-64-8
B5179  5-Bromo-2-ethynylpyridine CAS RN: 111770-86-6	D4613  3,5-Diethynylpyridine CAS RN: 67227-90-1	D4664  2,5-Diethynylpyridine CAS RN: 137000-75-0	E1091  2-Ethynylbenzothiazole CAS RN: 40176-80-5	E1092  7-Ethynylcoumarin CAS RN: 270088-04-5
F1222  5-FAM-Alkyne CAS RN: 510758-19-7	M3184  1-(4-Morpholinophenyl)-1-phenylprop-2-yn-1-ol CAS RN: 194940-93-7	P2139  N-Propargylmaleimide CAS RN: 209395-32-4	<b>Polyethylene Glycols (PEG)</b>	
mPEG <sub>4</sub> -Alkyne CAS RN: 1101668-39-6				

<b>D4580</b> 2-[2-(2-Propyn-1-yloxy)-ethoxy]ethanol CAS RN: 7218-43-1	<b>T3114</b> Triethylene Glycol Monopropargyl Ether CAS RN: 208827-90-1	<b>P2283</b> Alkyne-PEG <sub>5</sub> -NHS Ester CAS RN: 1393330-40-9	<b>P2225</b> 2-[2-(2-Propynyloxy)-ethoxy]ethylamine CAS RN: 944561-44-8	<b>E1054</b> Ethylene Glycol 1,2-Bis(2-propynyl) Ether CAS RN: 40842-04-4
<b>D4581</b> Diethylene Glycol Bis(2-propynyl) Ether CAS RN: 126422-57-9	<b>Others</b>	<b>B2393</b> 3-Butyn-2-one CAS RN: 1423-60-5	<b>P1173</b> Propargylaldehyde Diethyl Acetal CAS RN: 10160-87-9	<b>M0860</b> Methyl Propargyl Ether CAS RN: 627-41-8
<b>G0445</b> Glycidyl Propargyl Ether CAS RN: 18180-30-8	<b>T1455</b> Propargyl p-Toluenesulfonate CAS RN: 6165-76-0	<b>B5163</b> tert-Butyldimethyl-(2-propynyloxy)silane CAS RN: 76782-82-6	<b>P2258</b> 2-Propynyl [3-(Triethoxysilyl)-propyl]carbamate CAS RN: 870987-68-1	<b>T2046</b> 3-Butynyl p-Toluenesulfonate CAS RN: 23418-85-1
<b>B5042</b> 4-(tert-Butyldimethylsiloxy)-1-butyne CAS RN: 78592-82-2	<b>T1224</b> 1-Butyn-3-yl p-Toluenesulfonate CAS RN: 53487-52-8	<b>P2171</b> 2-Propynylurea CAS RN: 5221-62-5	<b>B4472</b> N-(tert-Butoxycarbonyl)-propargylamine CAS RN: 92136-39-5	<b>M2618</b> N-Methyl-N-propargylbenzylamine CAS RN: 555-57-7
<b>E1074</b> Ethynylboronic Acid Pinacol Ester CAS RN: 347389-74-6	<b>E0466</b> Ethynyl p-Tolyl Sulfone CAS RN: 13894-21-8	<b>H1214</b> 6-Heptynenitrile CAS RN: 15295-69-9	<b>P1438</b> Triphenylpropargyl-phosphonium Bromide CAS RN: 2091-46-5	<b>P2335</b> Propargyl Ether CAS RN: 6921-27-3
<b>P2336</b> Propargyl Sulfide CAS RN: 13702-09-5	<b>B5958</b> N-Carbonoxypropargylamine CAS RN: 120539-91-5	<b>D4963</b> Dimethyl Dipropargylmalonate CAS RN: 63104-44-9	<b>M2768</b> Methyl 4-Ethynylbenzoate CAS RN: 3034-86-4	<b>P2374</b> Propyzamide CAS RN: 23950-58-5
<b>P2603</b> N-Propargyltrifluoroacetamide CAS RN: 14719-21-2	<b>T1239</b> Trimethylsilylacetylene CAS RN: 1066-54-2	<b>T1683</b> Triisopropylsilylacetylene CAS RN: 89343-06-6	<b>T2387</b> Triethylsilylacetylene CAS RN: 1777-03-3	
<b>B5467</b> BCN-OH CAS RN: 1263166-90-0		<b>B6275</b> BCN-CO-NHS CAS RN: 1426827-79-3		<b>B6215</b> BCN-CO-NHS (2mgx5) CAS RN: 1426827-79-3
<b>Cu-free Click Reaction Reagents</b>				

B4062 25mg 100mg  BCN-amine CAS RN: 1263166-93-3	D5677 250mg  DBCO-Acid CAS RN: 1353016-70-2	A2763 25mg 100mg  DBCO-amine CAS RN: 1255942-06-3	D5999 25mg  DBCO-NHS CAS RN: 1353016-71-3	D5922 25mg  DBCO-PEG4-NHS Ester CAS RN: 1427004-19-0
D4739 25mg  DBCO-maleimide CAS RN: 1395786-30-7	D5849 1set  DBCO-maleimide (2mgx5) CAS RN: 1395786-30-7	D5552 25mg  DBCO-S-S-PEG3-Biotin CAS RN: 1430408-09-5	C3916 25mg  CPO-PEG3-DBCO (contains 5% Acetonitrile at maximum)	C3700 5mg 25mg  SCO-PEG2-Maleimide CAS RN: 2141976-23-8
T3949 5mg 25mg  TCO-PEG4-NHS CAS RN: 1621096-79-4	T3948 5mg 25mg  TCO-PEG3-Maleimide CAS RN: 1914971-04-2	T4126 25mg  N-(4E)-TCO-L-lysine CAS RN: 1380349-88-1	T3241 100mg 500mg  5,6,11,12-Tetrahydro-dibenzo[a,e]cyclooctene CAS RN: 53397-65-2	M3494 25mg  Methyltetrazine-NHS Ester CAS RN: 1644644-96-1
<h2>Azidation Reagents</h2>				
A2457 5g 25g 250g  2-Azido-1,3-dimethylimidazolinium Hexafluorophosphate CAS RN: 1266134-54-6	D1672 5g 25g 250g  Diphenylphosphoryl Azide CAS RN: 26386-88-9	A1786 5g 25g 100g  4-Acetamidobenzenesulfonyl Azide CAS RN: 2158-14-7	S0489 100g  Sodium Azide CAS RN: 26628-22-8	T0920 5g 25g  Tetrabutylammonium Azide CAS RN: 993-22-6
<h2>Ethynylation Reagents</h2>				
E0467 1g  Ethynyl(phenyl)iodonium Tetrafluoroborate CAS RN: 127783-34-0	P1239 1g  Trimethylsilylethyynyl(phenyl)-iodonium Tetrafluoroborate CAS RN: 127783-36-2	T3272 1g 5g  TMS-EBX CAS RN: 181934-29-2	D3546 1g 5g  Ohira-Bestmann Reagent (10% in Acetonitrile) CAS RN: 90965-06-3	D5048 5g 25g  Ohira-Bestmann Reagent (10% in Acetonitrile) CAS RN: 90965-06-3
T1239 5mL 25mL 250mL  Trimethylsilylacetylene CAS RN: 1066-54-2	T2387 1g 5g  Triethylsilylacetylene CAS RN: 1777-03-3	T1683 5mL 25mL  Triisopropylsilylacetylene CAS RN: 89343-06-6	B4365 5g 25g  (tert-Butyldimethylsilyl)acetylene CAS RN: 86318-61-8	M0180 25mL 500mL  2-Methyl-3-butyn-2-ol CAS RN: 115-19-5

B1090	5g 25g

BTMSA  
CAS RN: 14630-40-1

T3271	1mL 5mL

Triisopropyl[(trimethylsilyl)ethynyl]silane  
CAS RN: 107474-02-2





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