

Lipoic Acid – PEGx reagents

(modifiers)

Description

• α -lipoic acid (Lipoic acid, or thioctic acid, LA, ALA) is an organosulfur compound derived from caprylic acid (octanoic acid). It is needed by the body to produce the energy for our body's normal functions.

Alpha lipoic acid converts glucose (blood sugar) into energy.

Alpha lipoic acid is also an antioxidant, a substance that neutralizes free radicals, in water and fat (unlike the more common antioxidants, vitamins C and vitamin E). It appears to be able to recycle antioxidants such as vitamin C and glutathione (an an important antioxidant) after they have been used up. Lipoic acid can be used to bind to metallic particle or film surface with its -S-S-bond, thank its high affinity . It has been widely used for gold nanoparticles and quantum dots surfaces.

• PEG-Lipoic acid derivatives contain the **PolyEthyleGlycol arm** (**PEG**) in different lengths (from 400da to 40KDa) that imparts hydrophilicity and other physicochemical properties. For example, the PEG tether can suppress the non-specific binding of charged molecules to the modified surfaces.

PEGylated lipoic acid is water soluble and can be used directly in aqueous buffers.

• PEG-Lipoic acid derivatives contain a **functional group** that can be used by conventional chemistry to create conjugates. These reagents can modify peptides and proteins and other materials, to create conjugates and/or to increase solubility and stability and reduce immunogenicity.

Please see the technical notices for each functional group. NHS, Maleimide, Carboxyl, Amine, Azide, Hydroxyl, Thiol,...

Lipoid acid – mPEG reagents

Suuciule.			
Cat.Number		Name &	$k \text{ MW } (\text{Da} \sim \text{g} \cdot \text{mol}^{-1})$
(other sizes online	or <u>on inquire</u>)		
MF001039- PG2-ASLA		mPEGx	- LIPOIC ACID
		(mPEG	-LA)
B2XZV2, 1g		"	MW: 550Da
B2XZW2, 1g		"	MW: 750Da
B2XZX2, 1g	B2XZX2, 5g	"	MW: 1000Da
B2XZY2, 1g	B2XZY2, 5g	"	MW: 2000Da
B2XZZ2, 1g		"	MW: 3400Da
AWK4A2, 1g	AWK4A3, 5g	"	MW: 5000Da
B2Y002, 1g	B2Y003, 5g	"	MW: 10000Da
B2Y012, 1g	B2Y013, 5g	"	MW: 20000Da
B2Y022, 1g	B2Y023, 5g	"	MW: 30000Da
B2Y032, 1g	B2Y033, 5g	"	MW: 40000Da

* Store at $+4^{(K)}$...

* Structure







FT- 0A5061 Lipoid acid – PEG – Amine reagents

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$\gamma \gamma \gamma$	~ N./ ~	\sim	NH ₂
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* Structure :

Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
	LIPOIC ACID – PEGx – AMINE
	(LA-PEG-NH ₂)
B2XZQ2 Inquire	" MW: 400Da
B2XZR2	" MW: 1000Da
B2XZS2, 1g B2XZS3, 5g	" MW: 2000Da
B2XZT2, 1g B2XZT3, 5g	" MW: 3400Da
B2XZU0	" MW: 4000Da
0A5062, 1g 0A5063, 5g	" MW: 5000Da
AWK3T2, 1g AWK3T3, 5g	" MW: 10000Da
IO7610, 100mg IO7612, 1g	" MW: 20000Da
(other sizes <u>online</u> or <u>on inquire</u>)	LIPOIC ACID PEG AMINOOXY
	(LA-PEG-AO)
AWK3U0, 100mg	" MW: 5000Da

* Properties:

| Soluble in regular aqueous solution as well as in most organic solvents

*

* Store at $+4^{(M)}$. Keep in dry and avoid sunlight.

Lipoid acid - PEG - Carboxylic Acid reagents



* Structure :

Cat.Number (other sizes <u>online</u> or <u>on inquire</u>)	Name & MW (Da ~ $g \cdot mol^{-1}$)
HE039017- PG2-CALA	LIPOIC ACID – PEGx – CARBOXYL
	(LA-FEU-COOII)
BFXM42 Inquire	" MW: from 400Da to 800da
BFXM52, 1g	MW: 1000Da
AWK3S2, 1g	" MW: 2000Da
B2Y052, 1g	" MW: 3400Da
B2Y062, 1g	" MW: 5000Da
B2Y072, 1g	" MW: 10000Da
IO7612, 1g	" MW: 20000Da

* Properties:

| Soluble in regular aqueous solution as well as in most organic solvents *

Store at $+4^{\circ}C^{(\mathbb{K})}$, Keep in dry and avoid sunlight.





Lipoid acid – PEG – NHS (Succinimide) reagents

* Structure : LA-PEG-SS, Lipo-amido-PEG-Succinimidyl Succinate ester



Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
	LIPOIC ACID – PEGx – NHSuc
	(LA-PEG-NHS)
Inquire	" MW: from 400Da to 1000Da
AWK3Y2, 1g	" MW: 2000Da
JV4452, 1g	" MW: 3400Da
B2Y082, 1g	" MW: 5000Da
B2Y092, 1g	" MW: 10000Da
inquire	" MW: from 20KDa to 40KDa

* Properties:

Off-yellow solid or viscousliquid depends on molecule weight;

| Soluble in regular aqeous solution as well as most organic solvents;

* Store at $-20^{\circ}C^{(M)}$ (+4°C for short term)

Please inquire also for LA-PEG-SC, LA-PEG-NHS, Lipoic acid-PEG-**NHS**



LA-PEG-CMNHSuc LA-PEG-SCM, Lipoamido-PEG-Succinimidyl Carboxymethyl Ester	#B2Y0B0
$s \rightarrow a = \frac{1}{2} \left(a + b \right) \left(a + b \right)$	



LA-PEG-GNHSuc, LA-PEG-SG, Lipoamido-PEG-Succinimidyl Glutarate ester

#B2Y0C0

#B2Y0A0







Lipoid acid – PEG – Maleimide reagents

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* Structure :

Structure .	
Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
HE039022 PG2 LAMI	LIPOIC ACID – PEGx – MALEIMIDE
102-LAML	(LA-PEG-MAL)
BFXM62 Inquire	" MW: from 400Da to 3000Da
BFXM72, 1g	MW: 1000Da
BFXM82, 1g	MW: 2000Da
JV3732, 1g	" MW: 3400Da
BFXM92, 1g	MW: 5000Da
BFXMA2	" MW: 10000a
BFXMB2	" MW: 22000Da

* Properties:

| Off-yellow solid or viscous liquid depends on molecule weight;

| Soluble in regular aqeous solution as well as most organic solvents;

* Store at -20°C^(M), dessiccated Protect from light. Avoid frequent thaw and freeze. (+4°C for short term)

Lipoid acid – PEG – Azide reagents



* Structure :

Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
PG2-AZLA	LIPOIC ACID – PEGx – AZIDE
	(LA-PEG-N ₃)
BFXMC2 Inquire	" MW: from 400Da to 4000Da
BFXMD2	MW: 1000Da
B36GW2, 1g	MW: 2000Da
BFXME	MW: 3400Da
AWK3V0, 100mg	" MW: 5000Da
BFXMF2, 1g	MW: 1000Da
BFXMG2, 1g	MW: 20000Da

* Properties:

Off-yellow solid

| Soluble in regular aqeous solution as well as most organic solvents

| Reactive group: Azide (-N3)

| Reactive toward: Alkyne

* Store at -20°C^{(M).} (+4°C for short term)





FT- 0A5061 Lipoid acid – PEG – Hydroxyl reagents

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* Structure :	
Cat.Number	Name & MW (Da ∼ g·mol ⁻¹)
(other sizes <u>online</u> or <u>on inquire</u>)	
HE039002- PG2-LAOH	LIPOIC ACID – PEGx – HYDROXYL
	(LA-PEG-OH)
Inquire	" MW: from 400Da to 4000Da
B2Y0D2, 1g	" MW: 4000Da
AWK3Z2, 1g	" MW: 5000Da
inquire	" MW: from 6KDa to 40KDa

* Store at $+4^{\circ}C^{(K)}$.

Lipoid acid – PEG – Thiol reagents



* Structure :	
Cat.Number (other sizes <u>online</u> or <u>on inquire</u>)	Name & MW (Da ~ $g \cdot mol^{-1}$)
	LIPOIC ACID – PEGx – THIOL
	(LA-PEG-SH)
Inquire	" MW: from 400Da to 4000Da
B2Y0G2, 1g	" MW: 4000Da
B2Y0H2, 1g	" MW: 5000Da
inquire	" MW: from 6KDa to 40KDa

* Store at $-20^{\circ}C^{(M)}$ (+4°C for short term)

Lipoid acid – PEG – Lipoid acid reagents (Homobifunctional)



* Structure :

Budetule .	
Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
HO039039	LIPOIC ACID – PEGx – LIPOIC ACID
	(LA-PEG-LA)
Inquire	" MW from 400Da to 4000Da
B2Y042, 1g	" MW: 5000Da
inquire	" MW: from 7KDa to 40KDa

* Store at +4°C^{(M)..}

Ask also for Folic Acid-PEG-Lipoic acid (Folate-PEG-LA, FA-PEG-LA) #B2Y0C0





Lipoid acid – PEG – Biotin reagents



* Structure :	0
Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
HE039041- PG2-BNLA	LIPOIC ACID – PEGx – BIOTIN
	(LA-PEG-Biotin)
Inquire	" MW: from 400Da to 1000Da
AWK3W2, 1g	" MW: 2000Da
B2Y0E2, 1g B2Y0E3, 5g	" MW: 3400Da
B2Y0F2, 1g B2Y0F3, 5g	" MW: 5000Da
inquire	" MW: from 10KDa to 40KDa

* Properties:

| Off-yellow solid or viscous liquid depends on molecular weight

| Soluble in regular aqueous solution as well as most organic solvents

| Biotin group bind to (strep)avidin with very high affinity

* Store at $+4^{\circ}C^{(K)}$.

Lipoid acid – PEG – FITC reagents



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Cat.Number	Name & MW (Da ~ $g \cdot mol^{-1}$)
(other sizes <u>online</u> or <u>on inquire</u>)	
PG2-FCLA	LIPOIC ACID – PEGx – Fluoresein
	(LA-PEG-FITC)
Inquire	" MW: from 400Da to 4000Da
AWK3X0, 100mg	" MW: 5000Da
-	
inquire	" MW: from 6KDa to 40KDa

* Properties:

* Structure .

| Off-yellow solid or viscous liquid depends on molecular weight

| Soluble in regular aqueous solution as well as most organic solvents

| Biotin group bind to (strep)avidin with very high affinity

* Store at $+4^{\circ}C^{(K)}$.

Handling and Use:

For best use, material should always be kept in low temperature in dry conditions and under inert gaz for best stability. Prepare fresh solution right before use. Avoid frequent thaw and freezing.

Please ask Uptima@interchim.com for catalog sizes and prices or Interchim; Hotline : +33(0)4 70 03 73 06



Related products:

Other PEGylated lipidic agents



