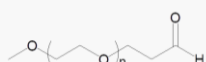


Aldehyde – PEGx reagents (modifiers)

Description

- The **PolyEthyleGlycol arm (PEG)** imparts hydrophilicity and other great physicochemical properties. For example, the PEG tether can suppress the non-specific binding of charged molecules to the modified surfaces. It is available in different lengths (from 400da to 40KDa) that allow to tune its effect optimally in each application.
- The Aldehyde group (**ALD**) present several interesting reactions (with amine, hydrazide,... groups). Methoxy PEG propionaldehyde is a stable aldehyde PEG that can be used as N-terminal amine group pegylation reagent for protein, antibody, peptides or carbohydrates. It reacts with N-terminal amines, such as the N-terminal on gsf, rhGCSF, at pH 5-8 in the presence of a reducing reagent ^[Wan 2010]. The reaction between aldehyde group with the α -amine at the N-terminus produces an intermediate Schiff base. Further reduction with hydride will form a stable C-N bond. PEG aldehydes react with n-terminus amine groups at a pH of from 5.0 to 9.5. Higher pH will result in multiple Pegylation with both terminal and lysine groups. See more in the technical notices of functional group. Aldehyde exists as propionaldehyde (ALP) an butyraldehyde (ALB), but also [□] amide-propionaldehyde, urethane-propionaldehyde, amide-butyraldehyde, urethane-butyraldehyde: see NT-[PEGYLs](#).

mPEG-propionaldehyde (mPEG-pALD) reagents



* Structure :

Cat.Number (other sizes online or on inquire)	Name & MW (Da ~ g.mol ⁻¹)
MF001039 PG2-ASLA	mPEG-propionaldehyde (mPEG-pALD, PEG-Aldehyde)
BS4GU1, 1g	“ MW: 550Da
BS4GV1, 1g	“ MW: 1000Da
BS4GW1, 1g	“ MW: 2000Da
inquire	“ MW: 3400Da
BS4GX1, 1g BS4GX2, 10g	“ MW: 5000Da
BS4GY1, 1g BS4GY2, 10g	“ MW: 10000Da
BS4GZ1, 1g BS4GZ2, 10g	“ MW: 20000Da
BS4H01, 1g BS4H02, 10g	“ MW: 30000Da
BS4H11, 1g BS4H12, 10g	“ MW: 40000Da

* Specifications and Properties

≥95% Substitution ^[1]

Off-white/white solid^[N];

Soluble in water, DMSO, DMF^[N];

* Store at -20°C^(J). Keep in dry and avoid sunlight.

FT- BS4GX1

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.

Directions for use^[N]:

- Dissolve targeted materials in pegylation buffer (amine free, pH5.5-6.5).
- Estimate the concentration of primary amine groups on the targeted materials.
- Add PEG aldehyde stock solution to the targeted conjugation materials at desired ratio.
Rem : Generally, a 5- to 10-fold molar excess of PEG aldehyde over the amount of amine-containing material results in sufficient conjugation.
- Allow mixture agitates at room temperature for 2~4 hrs at room temperature or overnight 4 °C.
- After reaction, C=N bond can be reduced by sodium borohydride.
- Conjugate can be purified either by size exclusion chromatography or dialysis.

Related products:

Ask also for mPEG-NH-CHO (mPEG-amide acetaldehyde)^[B].

See also mPEO_n-Propionaldehydes (FT-[BS4GX1](#))

mPEGx-Aldehydes MW:350-30000Da (e.g. #WT8911 in FT-[AYPMB0](#))

Y-shaped PEG Propionaldehyde^[J].

Methoxy PEG Raw Materials

Methoxy PEG GPC Standards^[J].

Other monofunctional mPEOs (FT-[0B6601](#))

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