

Label transfer crosslinkers

Sulfo-SBED

Product Description

ideal for protein:protein interaction studies using the label transfer method.

Sulfo-SBED

[96745A](#), 10mg

Sulfosuccinimidyl-2-[6-(biotinamido)-2-(p-azidobenzamido) hexanoamido]ethyl-1,3'-dithiopropionat

MW:

Storage: +4°C (M)

Also available as a kit (BF6701)

APDP

ANB-NOS

APDP

DTPA

SASD

Sulfo-SAND

UP85267A, 100mg

52219A, 50mg

UP85267A, 100mg

UP63972A, 100mg

UP40901B, 100mg

7503A, 50mg

Information

■ Introduction

Sulfo-SBED is a trifunctional crosslinking reagent. It contains:

- a **biotin tag**, this provide an effective and versatile detection (using avidin reagents) and a handle for purification
- a sulfonated N-hydroxysuccinimide (**Sulfo-NHS**) active ester, that reacts with primary amines (typically from a bait protein) at pH 7-9 to form covalent amide bonds.
- a **aryl azide group**, that has photoreactivity: Upon photolysis, aryl azides form short-lived nitrenes that react nonspecifically or undergo ring expansion and react with nucleophiles, especially amines.
- A **spacer** containing a cleavable disulfide bond, that can be cleaved by reducing agents such as DTT or TCEP.

■ Label transfer method

Many crosslinkers containing an aromatic group, i.e. aryl azide, can be labeled by radioactive iodide (^{125}I) using chloramine T method. The use of such radiolabelled crosslinkers allow to combine crosslinking and labeling of conjugate, that can be taken to good account to transfer a label from one known partner (typically a protein used as a bait) to an unknown ligand (said a prey):

Sulfo SBED allows to do this complete pull-down/co-Immunoprecipitation process, combining capture of an unknown prey in a complex sample probed by its available bait, and it's labeling by biotin. Also available as a kit (BF6701). The bait is activated (and biotinylated) by the crosslinker through one chemical reactive group (sNHS), then binds to the prey in a complex mixture. The interacting bait and prey can be conjugated on demand by photolysis (through aryl azide group) and further detected and even purified (through the biotin tag). As the crosslinker is also cleavable, the prey can finally be released, bearing the label.

Label transfer is particularly valuable because of its ability to identify proteins that interact weakly or transiently with the protein of interest.

Contact your local distributor

uptima@interchim.com

FT-96745A

Other label transfer reagents (cleavable photoreactive crosslinkers - see description above)

ADHP	996180, 100mg
ANB-NOS	52219A, 50mg
APDP	UP85267A, 100mg
DTPA	UP63972A, 100mg
SASD	UP40901B, 100mg
Sulfo-SAND	7503A, 50mg

Directions for Use

Handling:

- Take care to avoid moisture as the NHS ester will hydrolyze (half-life ~20 minutes in phosphate buffer at RT)
- Sulfo-SBED is soluble in DMSO (125mM), DMF (170mM), methanol (12mM) and water (~5mM). Prepare 1 to 3 mM solution in 0.1M PBS, or above add DMSO or DMF.

Conjugating:

- For the coupling reaction of the bait protein through the Sulfo-NHS group of SulfoSBED can be carried in most buffers at pH 7-9 provided they do not contain primary amines or sulfhydryls (i.e. phosphate, borate, carbonate and HEPES). Proteins modified with Sulfo-SBED may precipitate. Keep diluted and if needed, add solubilizing agents, filter.
- For the cleave of bait-prey conjugate, to recover the biotinylated prey, reduce using TCEP, dithiothreitol or 2-mercaptoethanol.
- The biotin modified interacting protein can be detected by Western blot using Streptavidin-HRP and an appropriate substrate.
- [Inquire](#) for additional protocol tips of coupling and pull-down/co-Immunoprecipitation .

Related products

UP284250	Dithiothreitol (DTT)
UP395888	Streptavidin, Horseradish Peroxidase Conjugate
248050	Streptavidin Coated Plates, 5 plates (see catalog for a complete listing of plates)
UP51559A	Streptavidin Agarose Resin
	PBS

Additional Information

Reagent for R&D *in vitro* use only

Contact Uptima – Interchim for any question

Rev. M10E

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