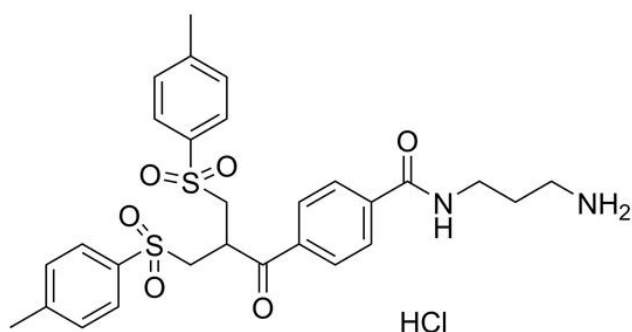




## **BIS-SULFONE AMINE**

**SKU:** CCT-1148



## **DESCRIPTION**

Bis-sulfone Amine is a bis-alkylating labeling reagent that is selective for the cysteine sulfur atoms from a native disulfide. These reagents undergo bis-alkylation to conjugate both thiols derived from the two cysteine residues of a reduced native disulfide bond such as the interchain disulfide bonds of an antibody. The reaction results in covalent rebridging of the disulfide bond via a three carbon bridge leaving the protein structurally intact.

The covalent, site-specific conjugation of PEG to a polyhistidine tag (His-tag) on a protein with bis-alkylating reagents was also reported in literature (see Selected References section).

## **SPECIFICATIONS**

|                          |                                                                                |
|--------------------------|--------------------------------------------------------------------------------|
| <b>CAS Number</b>        | N/A                                                                            |
| <b>Molecular Weight</b>  | 593.15                                                                         |
| <b>Molecular Formula</b> | C <sub>28</sub> H <sub>33</sub> ClN <sub>2</sub> O <sub>6</sub> S <sub>2</sub> |
| <b>Appearance</b>        | Grey amorphous solid                                                           |
| <b>Chemical Formula</b>  | C <sub>28</sub> H <sub>33</sub> ClN <sub>2</sub> O <sub>6</sub> S <sub>2</sub> |

**For research use only. Not intended for therapeutic or diagnostic use in animals or humans.**



|                              |                                 |
|------------------------------|---------------------------------|
| <b>Purity</b>                | >95% (HPLC)                     |
| <b>Unit Size</b>             | 1000 mg, 5 g                    |
| <b>Solubility</b>            | DMSO, DMF, DCM, THF, Chloroform |
| <b>Storage Instructions</b>  | -20°C. Desiccate                |
| <b>Shipping Conditions</b>   | Ambient temperature             |
| <b>Shipping Instructions</b> | Ambient temperature             |

## SELECTED REFERENCES

1. Khalili, H., *et al.* (2012). Comparative Binding of Disulfide-Bridged PEG-Fabs. *Bioconjug. Chem.*, **23(11)**, 2262-77. [[PubMed](#)]
2. Badescu, G., *et al.* (2014). Bridging Disulfides for Stable and Defined Antibody Drug Conjugates. *Bioconjug. Chem.*, **25(6)**, 1124-36. [[PubMed](#)]
3. Brocchini, S., *et al.* (2008). Disulfide bridge based PEGylation of proteins. *Adv Drug Deliv Rev.*, **60**, 3-12. [[PubMed](#)]
4. Balan, S., *et al.* (2007). Site-Specific PEGylation of Protein Disulfide Bonds Using a Three-Carbon Bridge. *Bioconjugate Chem.*, **18**, 61-76. [[PubMed](#)]
5. Wang, T., *et al.* (2014). Bis-sulfide bioconjugates for glutathione triggered tumor responsive drug release. *ChemComm.*, **50**, 1116-1118. [[PubMed](#)]
6. Wilbur, T., *et al.* (1994). Monoclonal antibody Fab' fragment cross-linking using equilibrium transfer alkylation reagents. A strategy for site-specific conjugation of diagnostic and therapeutic agents with F(ab')<sub>2</sub> fragments. *Bioconjugate Chem.*, **5**, 220-235. [[PubMed](#)]

### Site specific conjugation to a polyhistidine tag (His-tag).

1. Cong, Y., *et al.* (2012). Site-Specific PEGylation at Histidine Tags. *Bioconjugate Chem.*, **23**, 148-263. [[PubMed](#)]

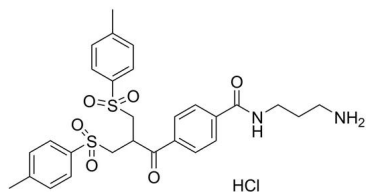
## DOCUMENTS

- [Safety Data Sheet](#)
- [Download CoA](#)
- [Datasheet](#)

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## GALLERY IMAGES



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