

## Sulfo-MBS

**Catalog No.:** D-9003

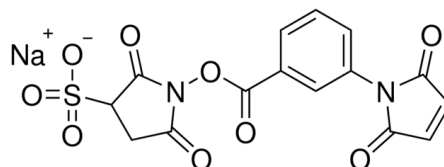
**Size:** 5mg, 10mg

**Storage:** Store at -20 °C

### General description:

Sulfo-MBS (m-maleimidobenzoyl-N-hydroxysulfosuccinimide ester)

MBS and its water-soluble analog Sulfo-MBS are heterobifunctional crosslinkers that contain N-hydroxysuccinimide (NHS) ester and maleimide groups that allow covalent conjugation of amine- and sulfhydryl-containing molecules. NHS esters react with primary amines at pH 7-9 to form amide bonds, while maleimides react with sulfhydryl groups at pH 6.5-7.5 to form stable thioether bonds. In aqueous solutions, hydrolytic degradation of the NHS ester is a competing reaction whose rate increases with pH. The maleimide group is more stable than the NHS-ester group but will slowly hydrolyze and also lose its reaction specificity for sulfhydryls at pH values > 7.5. For these reasons, conjugation experiments involving these crosslinkers are usually performed at pH 7.2-7.5, with the NHS-ester (amine-targeted) reaction being accomplished before or simultaneously with the maleimide (sulfhydryl-targeted) reaction.



### Properties:

MDL:	MFCD00054983
Formula:	C <sub>15</sub> H <sub>9</sub> O <sub>9</sub> N <sub>2</sub> NaS
Mol wt:	416.29
Form:	powder
Solubility:	water: soluble
Features and Benefits:	<ul style="list-style-type: none"> <li>• Reactive groups: sulfo-NHS ester and maleimide</li> <li>• Reactive towards: amino and sulfhydryl groups</li> <li>• Non-cleavable</li> <li>• Water-soluble (compare to MBS)</li> <li>• Membrane impermeable, allowing cell surface labeling</li> </ul>