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A Geno Technology, Inc. (USA) brand name

SulfoSMCC

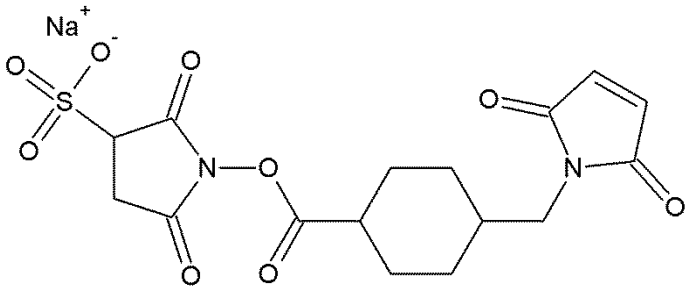
(Cat. # 786-082, BC23)

INTRODUCTION

SulfoSMCC is a commonly used heterobifunctional cross-linker that each contains an *N*-hydroxysuccinimide (NHS) ester and a maleimide group. NHS esters react with primary amines at pH 7-9 to form covalent amide bonds. Hydrolysis of the NHS ester, which is a competing reaction, increases with increasing pH and decreasing protein concentrations. Maleimides react with sulfhydryl groups at pH 6.5-7.5 to form stable thioether bonds. The maleimide groups of SulfoSMCC are unusually stable up to pH 7.5. These relatively stable maleimide activated intermediates may be lyophilized and stored for later reactions with sulfhydryls. SulfoSMCC is often used for the preparation of antibody-enzyme and hapten-carrier conjugates. For conjugation, the NHS ester is reacted first, excess reagent removed and then the sulfhydryl-containing molecule is added. SulfoSMCC is soluble up to ~10 mM in water and many commonly used buffers; however solubility decreases with increasing salt concentration.

PROPERTIES

Chemical name: Sulfosuccinimidyl 4-(*N*-maleimidomethyl)cyclohexane-1-carboxylate
Formula: $C_{16}H_{17}N_2O_9SNa$
Molecular Weight: 436.4
Spacer Arm Length: 11.6 Å
Primary amine and sulfhydryl reactive
Water soluble



ITEM(S) SUPPLIED (Cat. #: 786-082)

Cat. #	Description	Size
786-082	OneQuant™ SulfoSMCC	5mg/vial, 1 strip of 8 vials
BC23	sulfoSMCC	100mg

STORAGE CONDITIONS

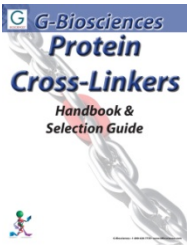
It is shipped at ambient temperature. Upon receipt store product at -20^{0}C protected from moisture. Stable for one year.

IMPORTANT INFORMATION

1. SulfoSMCC is moisture-sensitive. Equilibrate vial to room temperature before opening to avoid moisture condensation onto the product.
2. Avoid buffers containing primary amines (e.g., Tris or glycine) and sulfhydryls during conjugation, as they will react with the NHS ester and the maleimide, respectively.
3. Molecules to be reacted with the maleimide moiety must have free sulfhydryl (–SH) group(s) available. Disulfide bonds may be reduced to produce free sulfhydryls. After reduction, most reducing reagents must be removed before conjugation.
4. Prepare this reagent immediately before use.
   NOTE: *Sulfo-SMCC may be added to the reaction as a solid or suspension in water or appropriate buffer.*

RELATED PRODUCTS

Download our Protein Cross-linkers Handbook.



http://info.gbiosciences.com/complete-protein-cross-linkers-handbook/

For other related products, visit our website at www.GBiosciences.com or contact us.

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