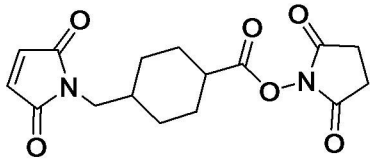
SMCC Crosslinker Protocol and Product Information Sheet

Product Category:	Heterobifunctional Crosslinkers
Catalog Number(s):	c1108-100mg, c1108-1gm, c1108-5x10mg, c1108-custom
Product Name:	SMCC Crosslinker
Alternative Name(s):	Succinimidyl-4-(N-maleimidomethyl)cyclohexane-1-carboxylate; 4-(N-Maleimidomethyl)cyclohexane-1-carboxylic acid-N-hydroxysuccinimide ester
CAS Number:	64987-85-5
Chemical Formula:	$C_{16}H_{18}N_2O_6$
Molecular Weight:	334.32
Spacer Arm Length:	8.3 Å
Storage:	Upon receipt store at 4°C (shipped at ambient temperature).



SMCC Crosslinking Protocol

1. Prepare amine-containing protein sample in non-amine containing conjugation buffer (i.e. 0.1 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.4).
2. Prepare a 50 mM solution of SMCC, by dissolving SMCC in dry DMSO or dry DMF.
3. Using a 20-fold excess approach (20:1 Crosslinker:Protein), add crosslinker solution to the protein sample, so that the final crosslinker concentration is between 0.5 to 5.0 mM. Optimal pH range is from 7.0 to 7.5.
4. React at room temperature for 35-45 minutes. Allow slightly longer if sample must be kept on ice (recommended 2-3 hours). The reaction rate is not highly temperature sensitive.
5. Desalt activated protein sample to remove residual crosslinker (i.e. gel filtration or dialysis, etc.) using conjugation buffer (i.e. 0.1 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.4).
6. Add Sulfhydry-containing protein and desalted amine-containing protein in an appropriate molar ratio required for the final conjugate and in accordance with the quantity of sulfhydryl and activated amines present between the two proteins.
7. React at room temperature for 35-45 minutes. Allow slightly longer if sample must be kept on ice (recommended 2-3 hours).

References:

Wong, S.S. (1993) CRC Chemistry of Protein Conjugation and Crosslinking. CRC Press, Boca Raton, Florida.

Hermanson, G.T. (2008) Bioconjugate Techniques, 2nd Ed. Academic Press, New York.

ProteoChem, Inc. * 7300 Edward Dr. * Loves Park, IL 61111
Toll Free: 888.501.2436 * Phone: +1.720.239.1630 * Fax: +1.720.239.1631
Technical Support E-mail: ts@proteochem.com
www.proteochem.com