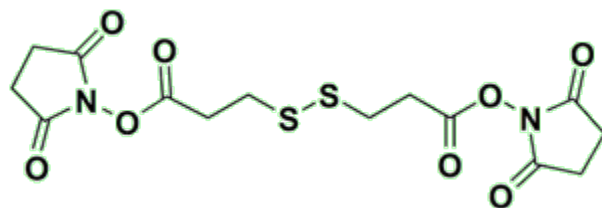


DSP Crosslinker Protocol and Product Information Sheet

Product Category:	Homobifunctional Crosslinkers
Catalog Number(s):	c1106-100mg , c1106-1gm , c1106-custom
Product Name:	DSP Crosslinker
Alternative Name(s):	DSP; DTSP; Lomant's Reagent ; 3,3'-Dithiodipropionic acid di(N-hydroxysuccinimide ester); Di(N-succinimidyl) 3,3'-dithiodipropionate; Dithiobis-succinimidyl propionate
CAS Number:	57757-57-0
Chemical Formula:	C ₁₄ H ₁₆ N ₂ O ₈ S ₂
Molecular Weight:	404.42
Spacer Arm Length:	12.0 Å



General DSP Crosslinking Protocol

1. Prepare a 50 mM solution of DSP crosslinker, by dissolving 10mg DSP in 495 μ L of dry DMSO or dry DMF solvent.
2. Using a 20-fold molar excess approach (20:1 Crosslinker:Protein), add crosslinker solution to the protein sample in non-amine containing buffer (i.e. 25 mM Sodium Phosphate, pH 7.4), so that the final crosslinker concentration is between 0.5 to 5 mM. Optimal pH range is from 7 to 9.
3. Allow the sample to react at room temperature for 30-45 minutes. Allow slightly longer if sample must be kept on ice (recommended 2-3 hours). This reaction rate is not highly temperature sensitive.
4. Quench any unreacted DSP with 25 mM to 200 mM Tris, pH 7.4. Allow to react for 10-15 minutes at room temperature.
5. Desalt sample to remove unreacted DSP crosslinker (i.e. gel filtration, dialysis, etc.).

Intracellular DSP Crosslinking Protocol

1. Remove media by washing cells twice with non-amine containing buffer (i.e. 25 mM Sodium Phosphate, pH 7.4).
2. The crosslinking solution as noted in steps 1 and 2 above, then add the crosslinker solution to the cells in a final concentration of ~2 mM.
3. Incubate the reaction mixture for 30-45 minutes at room temperature or for 2-3 hours if on ice.
4. Quench any unreacted DSP with 25 mM to 200 mM Tris, pH 7.4. Allow quenching reaction to proceed for 10-15 minutes at room temperature.

Reference:

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