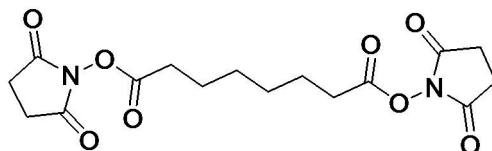


DSS Crosslinker Protocol and Product Information Sheet

Product Category:	Homobifunctional Crosslinkers
Catalog Number(s):	c1105-100mg , c1105-1gm , c1105-custom
Product Name:	DSS Crosslinker
Alternative Name(s):	Disuccinimidyl suberate; Suberic acid bis(N-hydroxysuccinimide ester)
CAS Number:	68528-80-3
Chemical Formula:	C ₁₆ H ₂₀ N ₂ O ₈
Molecular Weight:	368.34
Spacer Arm Length:	11.4 Å
Storage:	Upon receipt store at -20°C (shipped at ambient temperature). Protect from moisture (i.e. humidity); blanket under desiccated, inert gas.



DSS Crosslinking Protocol

1. Allow vial of DSS Crosslinker to fully equilibrate to ambient temperature before opening to prevent condensation inside the vial (DSS is moisture-sensitive).
2. Prepare a 50 mM solution of DSS, by dissolving 10 mg DSS in 540 µL of dry DMSO or dry DMF.
3. Using a 20-fold 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.
4. Allow the sample to react at room temperature for 45 minutes to 1 hour. Allow slightly longer if sample must be kept on ice (recommended 2-3 hours). This reaction rate is not highly temperature sensitive.
5. Quench any unreacted DSS with 25 mM to 200 mM Tris, pH 7.4 and allow to react for 10-15 minutes at room temperature.
6. Desalt sample to remove residual crosslinker (i.e. gel filtration or dialysis, etc.)

References:

- Wong, S.S. (1993) CRC Chemistry of Protein Conjugation and Crosslinking. CRC Press, Boca Raton, Florida.
- Pilch, P.F., Czech, M.P. (1979) J. Biol. Chem. 254, 3375.
- Howard, A.D., de La Baume, S., Giannini, T.L., Hiller, J.M., Simon, E.J. (1985) Journal of Biol. Chem. 260, 19, 10833-10839.