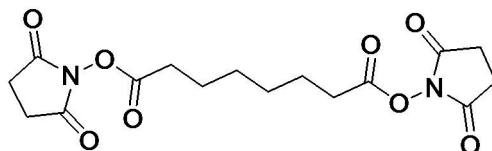


## DSS Crosslinker Protocol and Product Information Sheet

Product Category:	Homobifunctional Crosslinkers
Catalog Number(s):	<a href="#">c1105-100mg</a> , <a href="#">c1105-1gm</a> , 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 <sub>16</sub> H <sub>20</sub> N <sub>2</sub> O <sub>8</sub>
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.