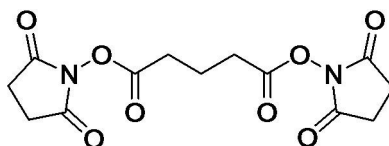


DSG Crosslinker Protocol and Product Information Sheet

| | |
|----------------------|-------------------------------------------------------------------------------------------------------|
| Product Category: | Homobifunctional Crosslinkers |
| Catalog Number(s): | c1104-100mg , c1104-1gm , c1104-custom |
| Product Name: | DSG Crosslinker |
| Alternative Name(s): | Disuccinimidyl glutarate; Glutaric acid bis(N-hydroxysuccinimide ester); Di(N-succinimidyl) glutarate |
| CAS Number: | 79642-50-5 |
| Chemical Formula: | C ₁₃ H ₁₄ N ₂ O ₈ |
| Molecular Weight: | 326.26 |
| Spacer Arm Length: | 7.7 Å |
| Storage: | Upon receipt store at 4°C (shipped at ambient temperature). |



DSG Crosslinking Protocol

1. Prepare a 50 mM solution of DSG, by dissolving 10 mg DSG in 540 μ L of dry DMSO or dry DMF.
2. 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.
3. 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.
4. Quench any unreacted DSG with 25 mM to 200 mM Tris, pH 7.4 and allow to react for 10-15 minutes at room temperature.
5. 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.

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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.