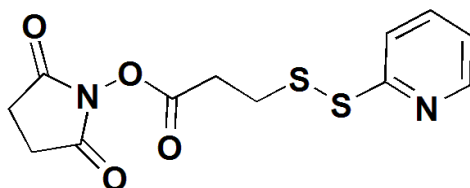


SPDP Crosslinker Protocol and Product Information Sheet

Product Category:	Heterobifunctional Crosslinkers
Catalog Number(s):	c1116-100mg , c1116-1g , c1116-custom
Product Name:	SPDP Crosslinker
Alternative Name(s):	3-(2-Pyridyldithio)propionic acid N-hydroxysuccinimide ester
CAS Number:	68181-17-9
Chemical Formula:	C ₁₂ H ₁₀ N ₂ O ₄ S ₂
Molecular Weight:	312.36
Spacer Arm Length:	6.8 Å
Storage:	Upon receipt store at -20°C (shipped at ambient temperature). Protect from moisture (i.e. humidity); blanket under desiccated, inert gas.



General SPDP Protein Crosslinking Protocol

1. Allow vial of SPDP Crosslinker to fully equilibrate to ambient temperature before opening to prevent condensation inside the vial (SPDP is moisture-sensitive).
2. Dissolve 5 mg of SPDP in 640 µL [DMSO \(cr8105-25ml\)](#) or [DMF \(cr8106-25ml\)](#) to give a 25 mM crosslinker solution.
3. Dissolve protein #1 (without active thiol residues) at a concentration of 1-5 mg/mL in 100 mM sodium phosphate buffer, pH 7.2 to pH 8.0, 1 mM EDTA.
4. Add 20 µL of 25 mM SPDP crosslinker solution to 1 mL of the above protein solution.
5. Allow reaction to proceed for 30-60 minutes at room temperature.
6. Remove unreacted SPDP crosslinker from protein containing solution through gel-filtration, such as [Desalting Resin q4109-1gm](#) (i.e. Sephadex® G-25).
7. Dissolve protein #2 (with active thiol residues) in 100 mM sodium phosphate pH 7.2 to 8.0, 1 mM EDTA buffer.
8. Add 0.2 to 1.0 molar equivalents of protein #2 solution to desalted activated protein #1.
9. Allow this reaction to proceed for 8 to 16 hours at room temperature.
10. To cleave the newly formed conjugate, incubate crosslinked product with 50 mM DTT ([cr8101-5x10mg](#)) for 90-120 minutes at room temperature or 1 hour at 45°C.

References:

Hermanson, G.T. 1996. Bioconjugates Techniques. Academic Press, San Diego, CA USA.