

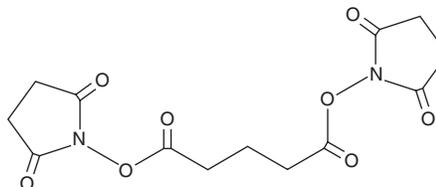
PRODUCT INFORMATION



Disuccinimidyl Glutarate

Item No. 20646

CAS Registry No.: 79642-50-5
Formal Name: pentanedioic acid, 1,5-bis(2,5-dioxo-1-pyrrolidinyloxy) ester
Synonym: DSG
MF: C₁₃H₁₄N₂O₈
FW: 326.3
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Disuccinimidyl glutarate (DSG) is supplied as a crystalline solid. A stock solution may be made by dissolving the DSG in the solvent of choice, which should be purged with an inert gas. DSG is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DSG in these solvents is approximately 20 and 10 mg/ml, respectively.

DSG is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DSG should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DSG has a solubility of approximately 0.15 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DSG is a homobifunctional crosslinking agent that contains amine-reactive N-hydroxysuccinimide (NHS) ester groups at each end.^{1,2} DSG is membrane-permeable and non-cleavable. DSG can be combined with formaldehyde fixation to improve the detection of specific protein-DNA complexes.³

References

1. Akin, B.L. and Jones, L.R. Characterizing phospholamban to sarco(endo)plasmic reticulum Ca²⁺-ATPase 2a (SERCA2a) protein binding interactions in human cardiac sarcoplasmic reticulum vesicles using chemical cross-linking. *J. Biol. Chem.* **287**(10), 7582-7593 (2012).
2. Huang, B.X., Kim, H.-Y., and Dass, C. Probing three-dimensional structure of bovine serum albumin by chemical cross-linking and mass spectrometry. *J. Am. Soc. Mass Spectrom.* **15**, 1237-1247 (2004).
3. Aoki, T., Wolle, D., Preger-Ben Noon, E., et al. Bi-functional cross-linking reagents efficiently capture protein-DNA complexes in *Drosophila* embryos. *Fly* **8**(1), 43-51 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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