

PRODUCT INFORMATION



Dextran sulfate (sodium salt)

Item No. 23250

CAS Registry No.:	9011-18-1
Formal Name:	dextran, hydrogen sulfate, sodium salt
Synonym:	DSS
FW:	~40,000.0
UV/Vis.:	λ_{\max} : 270 nm
Supplied as:	A solid
Storage:	4°C
Stability:	≥4 years

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

Laboratory Procedures

Dextran sulfate (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the dextran sulfate (sodium salt) in the solvent of choice. Dextran sulfate (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of dextran sulfate (sodium salt) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dextran sulfate (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of dextran sulfate (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Dextran sulfate is a sulfated polysaccharide of variable molecular weight ranging from 5 to 1,400 kDa.¹ Oral administration of dextran sulfate induces colonic inflammation in a mouse model of inflammatory bowel disease (IBD). Acute, chronic, and relapsing models of IBD can be induced by varying the concentration and administration frequency of dextran sulfate. Dextran sulfate has also been used in molecular biology applications including precipitation of lipoproteins, acceleration of DNA probe hybridization to nucleic acids, and ribosomal isolations.²⁻⁴

References

1. Chassaing, B., Aitken, J.D., Malleshappa, M., *et al.* Dextran sulfate sodium (DSS)-induced colitis in mice. *Curr. Protoc. Immunol.* **104**, Unit 15.25 (2014).
2. Burstein, M., Scholnick, H.R., and Morfin, R. Rapid method for the isolation of lipoproteins from human serum by precipitation with polyanions. *J. Lipid Res.* **11(6)**, 583-595 (1970).
3. Wahl, G.M., Stern, M., and Stark, G.R. Efficient transfer of large DNA fragments from agarose gels to diazobenzyloxymethyl-paper and rapid hybridization by using dextran sulfate. *Proc. Natl. Acad. Sci. U.S.A.* **76(8)**, 3683-3687 (1979).
4. Ascione, R. and Arlinghaus, R.B. Characterization and cell-free activity of polyribosomes isolated from baby hamster kidney cells. *Biochim Biophys. Acta.* **204(2)**, 478-488 (1970).

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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