

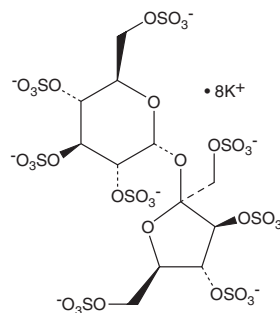
PRODUCT INFORMATION



Sucrose octasulfate (potassium salt)

Item No. 16382

CAS Registry No.: 73264-44-5
Formal Name: 2,3,4,6-tetrakis(hydrogen sulfate),1,3,4,6-tetra-O-sulfo-β-D-fructofuranosyl α-D-glucopyranoside, octapotassium salt
Synonyms: SOS, Sucrosolate potassium
MF: C₁₂H₁₄O₃₅S₈ • 8K
FW: 1,287.5
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

Sucrose octasulfate (potassium salt) (SOS) is supplied as a crystalline solid. A stock solution may be made by dissolving the SOS in water. The solubility of SOS in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

SOS, a component of the gastrointestinal protectant sucralfate, is an alkaline aluminum-sucrose complex that inhibits peptic hydrolysis and raises gastric pH, protecting esophageal epithelium against acid injury.¹ It can bind to exosite II of thrombin ($K_D = \sim 1.4 \mu\text{M}$) and inhibit its catalytic activity ($IC_{50} = 4.5 \mu\text{M}$) and, as such, has been used as a surrogate for heparin.² Furthermore, SOS has been shown to inhibit tumor growth in mouse melanoma and lung carcinoma models by preventing fibroblast growth factor 2 (FGF-2) binding to endothelial cells and also by removing any pre-bound FGF-2 from these cells ($IC_{50} = \sim 2 \mu\text{g/ml}$).³

References

1. Furukawa, O., Matsui, H., and Suzuki, N. Effects of sucralfate and its components on acid- and pepsin-induced damage to rat gastric epithelial cells. *Jpn. J. Pharmacol.* **75(1)**, 21-25 (1997).
2. Desai, B.J., Boothello, R.S., Mehta, A.Y., et al. Interaction of thrombin with sucrose octasulfate. *Biochemistry* **50(32)**, 6973-6982 (2011).
3. Fannon, M., Forsten-Williams, K., Nugent, M.A., et al. Sucrose octasulfate regulates fibroblast growth factor-2 binding, transport, and activity: Potential for regulation of tumor growth. *J. Cell Physiol.* **215(2)**, 434-441 (2008).

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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