

Dextran Sulfate Sodium Salt, MW36000~50000

Product description

Dextran sulfate sodium (DSS) is a polyanionic derivative of dextran, formed by the esterification reaction of dextran and chlorosulfonic acid. It is commonly used in colitis modeling research. DSS has several characteristics: 1) It is a polyanionic compound soluble in water, forming a colorless aqueous solution; 2) It exhibits high purity and good stability; 3) It is naturally degradable.

Inflammatory bowel disease (IBD) is a chronic, relapsing gastrointestinal infection that increases the risk of intestinal tumors, mainly including ulcerative colitis (UC) and Crohn's disease (CD). Since its first reported use in 1985 for inducing ulcerative colitis-like symptoms in mice, using dextran sulfate sodium (DSS), numerous studies have confirmed the similarity of the DSS colitis model to human ulcerative colitis. The histological features, clinical manifestations, the disease site and cytokine proliferation of DSS colitis model are very similar to human ulcerative colitis (UC). The modeling conditions and operation methods of this model are simple, cost-effective, reproducible, easy to master, and can be easily adapted and standardized. Depending on the experimental objectives, the DSS concentration and administration timing can be adjusted to establish acute, chronic, or alternate acute-chronic models.

Specifications

English Synonym	Dextran Sulfate Sodium Salt, DSS; Dextran Sodium sulfate
CAS NO.	9011-18-1
Formula	$(C_6H_7Na_3O_{14}S_3)_n$
Molecular Weight	36,000 ~50,000 Da
Appearance	White or off-white powder
Solubility	Soluble in water, slightly soluble in ethanol.

Components

Components No.	C331601E	C331601S	C331601M	C331601L
Size	25 g	100 g	500 g	1 kg

Storage

The product is shipped and stored at room temperature, valid for 2 years.

Notes

1. DSS is a glucan polymer with an average molecular weight. There may be differences in molecular weight between batches, and molecular weight has an impact on colitis modeling.

It is usually relatively stable between batches, but there may be differences in a small number of batches. It is recommended that customers purchase enough products of the same batch according to experimental needs, or conduct pre-experiments before using the batch.

2. The operating environment, containers, and dispensing tools must be kept dry.
3. For your safety and health, please wear a lab coat and disposable gloves.
4. This product is for research use only and is not intended for use on humans.

Instructions

Soluble in water (100 mg/mL clear or slightly hazy yellow solution). The specific concentration used should be determined according to the type of modeling, referring to relevant literature or through preliminary experiments.