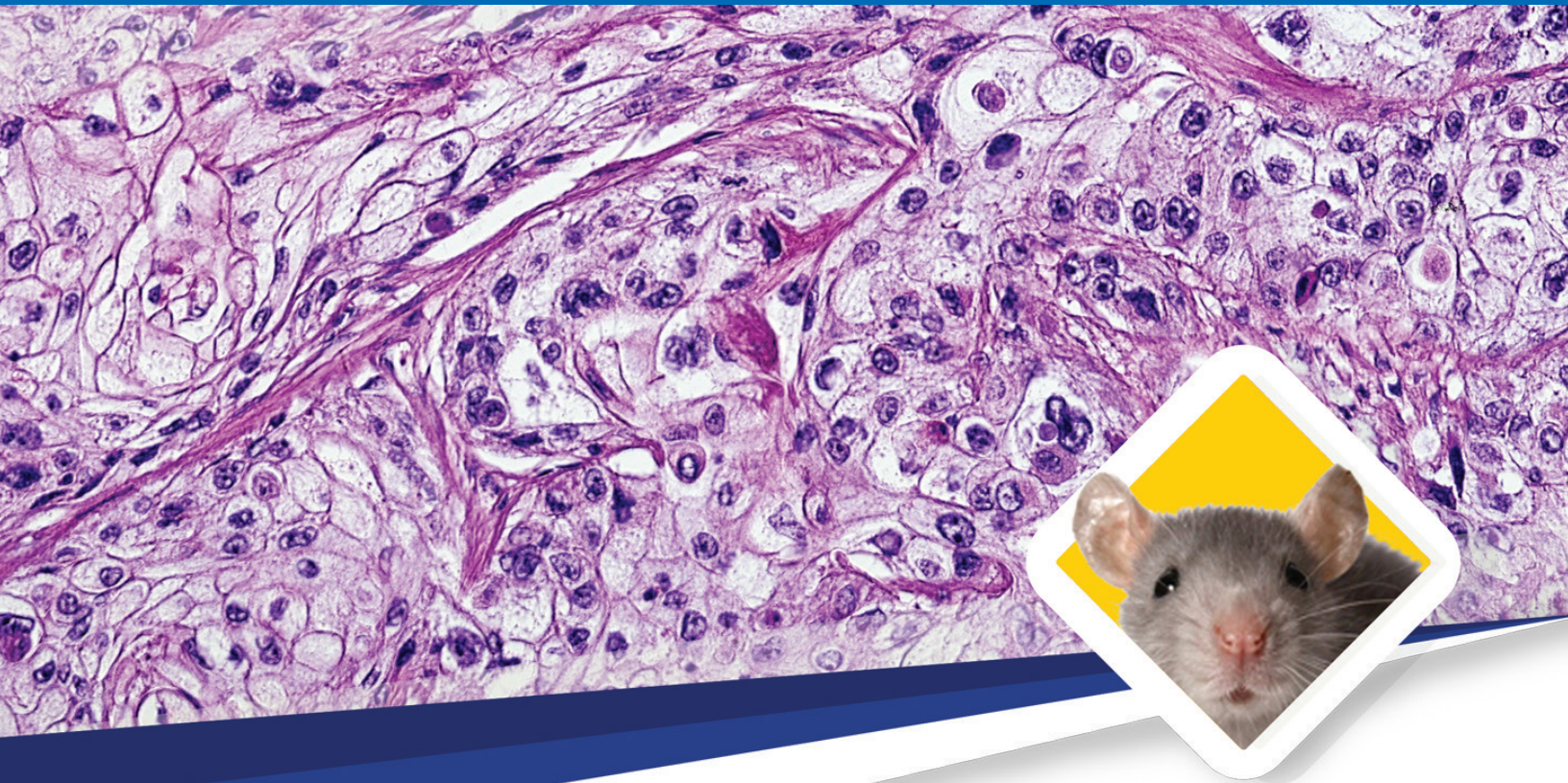


MP Biomedicals

MP Premium Dextran Sulfate Sodium Salt (DSS)



MP Premium DSS - High Purity, Reproducible Quality!

A Gold Standard in Colitis Research

**25%
Bodyweight
Loss in
Lab Mice
in 7 days!**

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Request a 10g sample of our MP Gold Standard DSS
for colitis research absolutely FREE.



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MP Premium DSS

The World's Most Potent Intestinal Inflammation Reagent.

MP Biomedicals takes great pride in the research conducted by our customers and we enable this by providing the best in quality and highly validated MP Premium Dextran Sulfate Sodium Salt.

Dextran Sulfate Sodium Salt (DSS) is a polyanionic derivative of Dextran. MP Premium DSS is offered at the highest quality, purity and reproducible form which enable it for multiple applications in clinical, molecular biology, biomedical and possibly for cosmetic applications.

MP Premium Dextran Sulfate Sodium Salt has the following properties:

- Water soluble polyanion.
- Forms a clear solution and mimics natural mucopolysaccharides.
- High purity and good stability.
- Readily degradable by ecological systems.
- Acts as a stabilizer to sensitive natural ingredients.

MP Premium Dextran Sulfate Sodium Salt from MP Biomedicals is one of the most widely used product based on peer reviewed scientific publications. Over the past 15 years 3,000+ scientific publications have cited the use of our DSS. Hence when you select one of our DSS offerings, you can be assured of the performance based on quality, performance and validity.

Cat. No.	Description	Pack Size
0216011001	Dextran Sodium Sulfate Gold Standard	1 g
0216011010		10 g
0216011025		25 g
0216011050		50 g
0216011080		100 g
0216011090		500 g

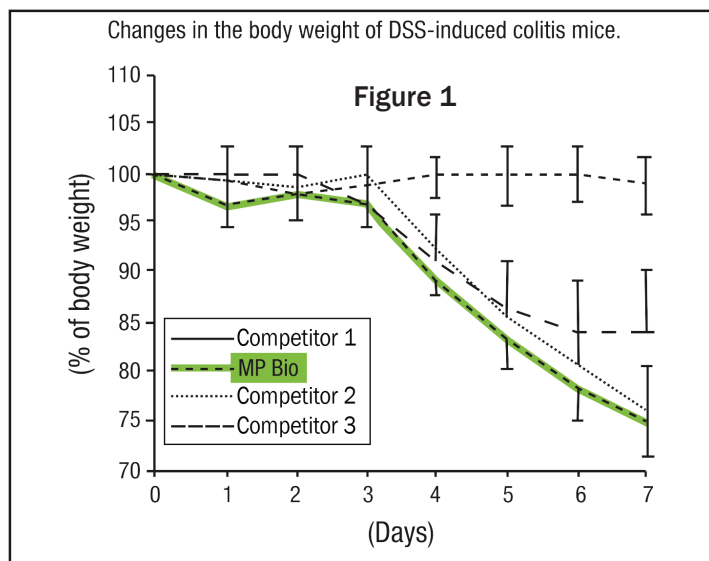


Inflammatory Bowel Disease (IBD) is characterized by chronic and relapsing inflammation of the gastrointestinal tract which is associated with increased risk of developing colitis-associated cancer. Several animal models have been used to study colitis and one such model involves the oral administration of dextran sulfate sodium salt (DSS) in the drinking water of mice leading to chronic colitis. This DSS induced colitis model is spontaneous and is used to assess the therapeutic potential of treatments for IBD.

Accelerate your IBD research with the most validated and attested Dextran Sulfate Sodium Salt. A certificate of analysis is supplied with each batch. The molecular weight range, sulfur content, moisture, specific rotation, and residue of ignition are carefully controlled. Also pH in 1% Aqueous solution and free sulphate.

Dextran Sulfate Sodium Salt MP Grade (36,000-50,000 Da)

Bamba et al (2012) performed a comparative analysis of 3 different DSS preparations to examine the chemical and cytotoxic properties as well as severity of colitis. Their study concluded that the DSS from MP Biomedicals induced a severe colitis as indicated by body weight transition, DAI score, colon weight/length and histological scores (Figure 1).



Highest efficiency!

Figure 1:

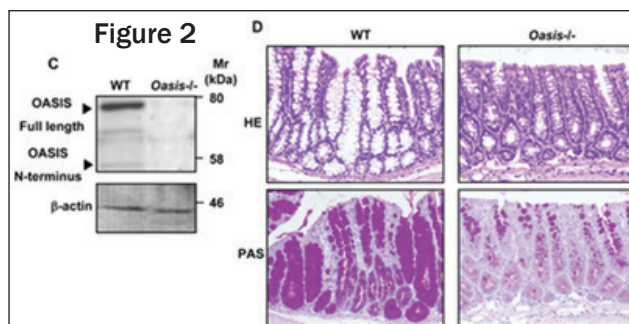
The mice were fed normal chow and 2.0% wt/wt DSS in water for 1 week and then sacrificed. The weight of individual mice was monitored daily. The data represent means=SD (1).

Increased Susceptibility to Dextran Sulfate Sodium-Induced Colitis in the Endoplasmic Reticulum Stress Transducer OASIS Deficient Mice (Figure 2) has been shown by Hino et al. (2014) and also by Perse and Cerar (2012).

Figure 2:

(C) Western blotting of OASIS in the large intestine from 8-week-old mice. Both full-length OASIS (full OASIS) and the N-terminal OASIS (N-OASIS) were detected in the large intestine. (D) HE (upper panels) and PAS (lower panels) staining of the large intestines from 8-week-old WT and *Oasis*^{-/-} mice. In the *Oasis*^{-/-} large intestine, the number of mature goblet cells containing large mucosal granules was markedly decreased compared with that in WT mice. (2), (3).

1. Bamba S. et al., (2012). *Dig Dis Sci*, 57(2): 327-34
2. Hino K, et al. (2014). *PLoS ONE* 9(2): e88048. doi:10.1371/journal.pone.0088048
3. Perse M, Cerar A (2012) Dextran sodium sulphate colitis mouse model: traps and tricks. *J Biomed Biotechnol* 2012:718617



3,000 + Scientific publications refer the use of MP Premium Dextran Sulfate Sodium Salt from MP Biomedicals!

- Crncec, I., et al.. Induction of colorectal cancer in mice and histomorphometric evaluation of tumors. *Methods Mol. Biol.* 1267, 145–64 (2015).
- Gurav, A. et al. Slc5a8, a Na⁺-coupled high-affinity transporter for short-chain fatty acids, is a conditional tumour suppressor in colon that protects against colitis and colon cancer under low-fibre dietary conditions. *Biochem. J.* 469, 267–78 (2015).
- Dai, X. et al. MicroRNA-193a-3p Reduces Intestinal Inflammation in Response to Microbiota via Down-regulation of Colonic PepT1. *J. Biol. Chem.* 290, 16099–115 (2015).
- Wen, Y.-A. et al. Loss of PHLPP protects against colitis by inhibiting intestinal epithelial cell apoptosis. *Biochim. Biophys. Acta* 1852, 2013–23 (2015).
- Reddy, K. V. K. & Naidu, K. A. Maternal and neonatal dietary intake of balanced n-6/n-3 fatty acids modulates experimental colitis in young adult rats. *Eur. J. Nutr.* (2015).
- Raczynska, K. D. et al. FUS/TLS contributes to replication-dependent histone gene expression by interaction with U7 snRNPs and histone-specific transcription factors. *Nucleic Acids Res.* (2015).

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- Validated by 3,000+ scientific publications
- Offers Highest Sulfur content (18-20%)
< 0.2% free sulfate
- Highest purity (99%) and stability
- Highest efficiency
- Best value in the industry.

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