

Colitis Grade Dextran Sulfate Sodium (DSS) Salt

Dextran sulfate sodium (DSS) is one of the most common and effective compounds used for inducing ulcerative colitis (UC) in animals. The DSS colitis model has also been used extensively to study colon cancer developing in relation to colonic inflammation. Because of its high efficacy, DSS from YEASEN is widely used products in the scientific literature.



Vital Attribute

01

High purity
98%+

02

High sulfur content
16-20%

03

Low pH
5.5-7.5 at 10%
aqueous solution

04

Low free sulfur content
≤0.2%

Key Feature

- High similarity with clinical symptom
- Good repeatability
- Widely used in multiple animal models
- Various characteristic symptoms induced by controlling the dose of DSS, including the severe colitis (inflammatory bowel disease) inflammatory
- Paired with azoxymethane (AOM) to induce mouse colon cancer models, which widely adopted recently to study the carcinogenesis mechanisms of human colorectal cancer

Performance Demonstration

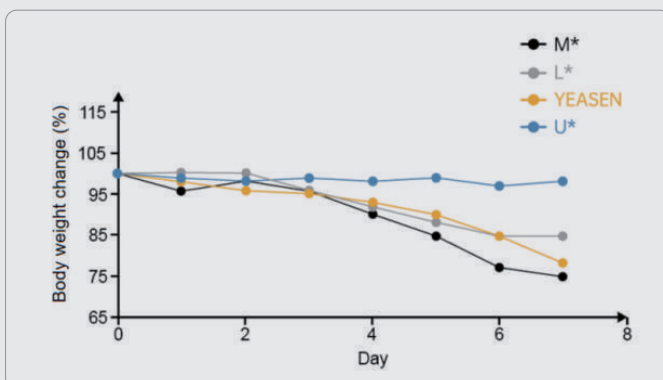


Figure 1: Compare the induction effects of different-brand DSS on acute colitis in BALB/c mice. Fill the drinking supply of the mice cages with 2% DSS solution for continuous one week. The more weight the mice lost, the better the induction effect. The induction effect from YEASEN was close to the M* brand product and superior to the other two brands.

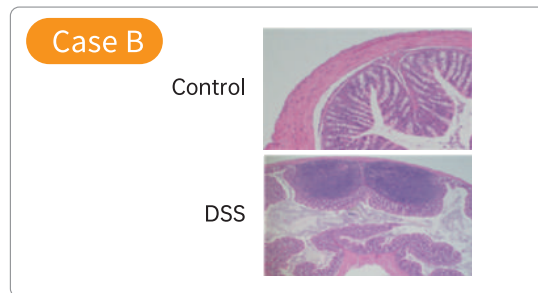
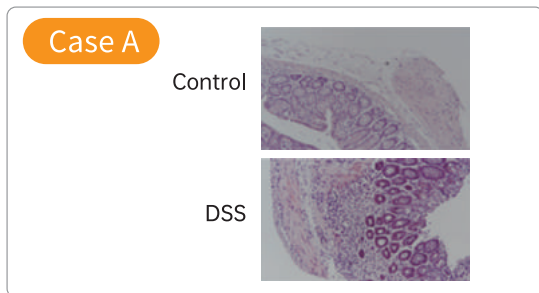


Figure 2: The excellent induction effect of DSS from YEASEN was shown as above. Fill the drinking supply with 2-3% DSS solution. There was obvious intestinal ulcer and inflammation infiltrated the intestine 7 days later in Case A. And the intestinal mucosa destruction, tissue edema & congestion, and gland structure damage appeared 7 days later in Case B.

Published Literature

[1] Li Zhao, Fei Wang, Zhengwei Cai, et al. Improving drug utilization platform with injectable muco-adhesive hydrogel for treating ulcerative colitis[J]. Chemical Engineering Journal. 424(2021)130464. (IF=16.744)

[2] Lingjun Tong, Haining Hao, Zhe Zhang, et al. Milk-derived extracellular vesicles alleviate ulcerative colitis by regulating the gut immunity and reshaping the gut microbiota[J]. Theranostics. 2021; 11(17): 8570-8586. (IF=11.556)

[3] Li, Y., Dong, J., Xiao, H., Zhang, S., Wang, B., Cui, M., & Fan, S. Gut commensal derived-valeric acid protects against radiation injuries. Gut Microbes, 2020 .1-18. (IF=10.245)

[4] Jingjing Gan, Yuxiao Liu, Lingyu Sun, et al. Orally administrated nucleotide-delivery particles from microfluidics for inflammatory bowel disease treatment[J]. Applied Materials Today. 2021 Dec; 25:101231. (IF=10.041)

[5] Jiali Dong, Yuan Li, Huiwen Xiao, et al. Oral microbiota affects the efficacy and prognosis of radiotherapy for colorectal cancer in mouse models[J]. Cell reports. 2021, 109886. (IF=9.423)

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Order Information

Product Name	Catalog No.	Package
Dextran Sulfate Sodium Salt (DSS) MW: 36000~50000	60316ES25	25 g
	60316ES60	100 g
	60316ES76	500 g
	60316ES80	1 Kg

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