# **Proteins**

# **Product** Data Sheet

## **Docusate Sodium**

Cat. No.: HY-B1268 CAS No.: 577-11-7 Molecular Formula:  $C_{20}H_{37}NaO_7S$ 

Molecular Weight: 444.56 HSV Target:

Pathway: Anti-infection

4°C, sealed storage, away from moisture and light Storage:

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

### **SOLVENT & SOLUBILITY**

In Vitro

 $H_2O : \ge 20 \text{ mg/mL } (44.99 \text{ mM})$ 

\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.2494 mL	11.2471 mL	22.4942 mL
	5 mM	0.4499 mL	2.2494 mL	4.4988 mL
	10 mM	0.2249 mL	1.1247 mL	2.2494 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS

Solubility: 50 mg/mL (112.47 mM); Clear solution; Need ultrasonic

### **BIOLOGICAL ACTIVITY**

Description

Docusate Sodium (Dioctyl sulfosuccinate sodium salt) is one of the main components in stool softeners. Docusate Sodium is a sulfated surfactant and may inactivate viral pathogens by disrupting viral envelopes and/or denaturing/disassociating proteins. Docusate Sodium is effective in vitro against wild type and drug-resistant strains of HSV type 1 and 2. Docusate Sodium is an obesogen. Docusate Sodium with developmental exposure leads to increased adult adiposity, inflammation, metabolic disorder and dyslipidemia in offspring fed a standard diet in mice $^{[1][2]}$ .

IC<sub>50</sub> & Target

HSV-1

HSV-2

In Vivo

Docusate Sodium (Dioctyl sulfosuccinate sodium salt; 31.25 µg/mL; dissolved in water) in dams increases body mass, fat mass, fat percentage and reduces bone area in adult F1 male offspring<sup>[2]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Pregnant dams <sup>[2]</sup>	
Dosage:	31.25 μg/mL	
Administration:	Dissolved in water	
Result:	F1 male offspring from DOSS-treated dams were significantly heavier than control male counterparts at 12 weeks and 16 weeks.	

# **CUSTOMER VALIDATION**

• J Biol Chem. 2022 Aug 26;102417.

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### **REFERENCES**

[1]. Alexis M Temkin, et al. Increased adiposity, inflammation, metabolic disruption and dyslipidemia in adult male offspring of DOSS treated C57BL/6 dams. Sci Rep. 2019 Feb 6;9(1):1530.

[2]. Y Gong, et al. Preclinical evaluation of docusate as protective agent from herpes simplex viruses. Antiviral Res. 2001 Oct;52(1):25-32.

Caution: Product has not been fully validated for medical applications. For research use only.

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