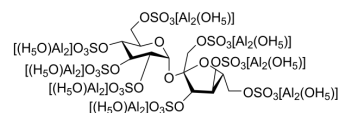


## Sucralfate

<b>Cat. No.:</b>	HY-B0644		
<b>CAS No.:</b>	54182-58-0		
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>14</sub> Al <sub>16</sub> O <sub>75</sub> S <sub>8</sub>		
<b>Molecular Weight:</b>	2046.42		
<b>Target:</b>	Bacterial		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

1M NaOH : 20 mg/mL (9.77 mM; ultrasonic and adjust pH to 12 with 1M NaOH)  
 DMSO : < 1 mg/mL (insoluble or slightly soluble)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	0.4887 mL	2.4433 mL	4.8866 mL
	5 mM	0.0977 mL	0.4887 mL	0.9773 mL
	10 mM	---	---	---

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

### BIOLOGICAL ACTIVITY

#### Description

Sucralfate (Sucrose octasulfate-aluminum complex) is a potent and orally active gastroprotectant with no systemic effects. Sucralfate inhibits peptic activity and binds to negatively charged subepithelial proteins exposed during mucosal injury, forming a viscous layer that protects the vascular bed and proliferative zone. Sucralfate is used for prevention and research of several gastrointestinal diseases in vivo<sup>[1][2]</sup>.

#### In Vivo

Sucralfate is a cytoprotective agent which has been employed for prevention and treatment of several gastrointestinal diseases. Enemas containing Sucralfate improves the inflammation and increases the tissue contents of neutral and acid mucins. The content of neutral mucins does not change with the time or concentration of Sucralfate used, while acid mucins increases with concentration and time of intervention. A significant increase in tissue content of neutral mucins in animals subjected to irrigation with Sucralfate (SCF) is found compare to animals irrigated with S.F. 0.9%, regardless of the concentration and duration of intervention<sup>[1]</sup>.

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

---

## PROTOCOL

### Animal Administration <sup>[1]</sup>

Thirty-six male Wistar rats (300 to 350 g) are used in this study. The animals are divided into two experimental groups with 18 animals in each group. Each experimental group is divided into six subgroups (n=6) according to the intervention solution employed and time of intervention. In the first and second subgroups, 12 animals receive daily rectal enemas containing 40 mL of 0.9% saline solution (control subgroup) at 37°C for two weeks (n=6) and four weeks (n=6). In the second subgroup, 12 animals receive daily rectal enemas containing 40 mL of Sucralfate (SCF) at a concentration of 1.0 g/kg for two weeks (n=6) and four weeks (n=6). Finally, 12 animals of the third subgroup receive daily enemas containing 40 mL of Sucralfate at a concentration of 2.0 g/kg for two weeks (n=6) and four weeks (n=6). In order to standardize the speed and time of application, the enemas are administered in all animals with an infusion pump whose speed is standardized at 2/mL/min<sup>[1]</sup>.

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

---

## REFERENCES

[1]. Chaim FM, et al. Evaluation of the application of enemas containing sucralfate in tissue content of neutral and acid mucins in experimental model of diversion colitis. *Acta Cir Bras.* 2014 Sep;29(9):544-52.

[2]. Tracy L Hill, et al. Effect of sucralfate on gastric permeability in an ex vivo model of stress-related mucosal disease in dogs. *J Vet Intern Med.* 2018 Mar;32(2):670-678.

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA