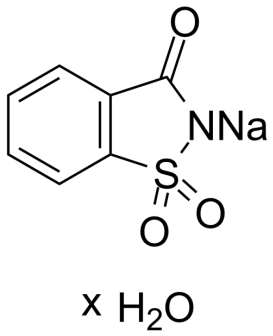
Saccharin sodium hydrate

Cat. No.:	HY-B1390B
CAS No.:	82385-42-0
Molecular Formula:	$C_7H_5NO_3S.xH_2O.Na$
Target:	Bacterial
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (Need ultrasonic) H_2O : 83.33 mg/mL (Need ultrasonic)
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (Infinity mM); Clear solution; Need ultrasonic 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (Infinity mM); Clear solution 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (Infinity mM); Clear solution 4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (Infinity mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Saccharin sodium hydrate is an orally active, non-caloric artificial sweeteners (NAS). Saccharin sodium hydrate has bacteriostatic and microbiome-modulating properties[1].
In Vitro	In vitro, Saccharin sodium hydrate (0.5, 2.5, 5 mM) inhibits bacterial growth in a species-dependent manner[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In vivo, Saccharin sodium hydrate (oral; 5 mg/kg; twice a day) intake reduces fecal bacterial load and alters microbiome composition, while the intestinal barrier is not obviously affected in male C57BL/6JRj wild type (wt) mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Sünderhauf A, et al. Saccharin Supplementation Inhibits Bacterial Growth and Reduces Experimental Colitis in Mice. Nutrients. 2020 Apr 17;12(4). pii: E1122.

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

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