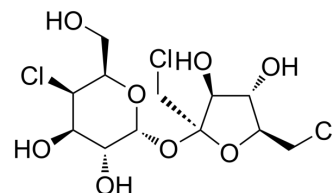


## Sucralose

Cat. No.:	HY-N0614		
CAS No.:	56038-13-2		
Molecular Formula:	C <sub>12</sub> H <sub>19</sub> Cl <sub>3</sub> O <sub>8</sub>		
Molecular Weight:	397.63		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 100 mg/mL (251.49 mM; Need ultrasonic)  
 DMSO : 100 mg/mL (251.49 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		2.5149 mL	12.5745 mL	25.1490 mL
	5 mM		0.5030 mL	2.5149 mL	5.0298 mL
	10 mM		0.2515 mL	1.2575 mL	2.5149 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 (125.75 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

Sucralose (E955; Trichlorosucrose) is a non-nutritive artificial sweetener and sugar substitute. Sucralose can activate a conserved neural fasting response and thereby exerts an appetite-stimulating effect in rodents<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

Human Endogenous Metabolite

#### In Vivo

The results show that Sucralose induces significant increased incidence of all hematopoietic neoplasias in male mice exposed to 2,000 (p≤0.01), and 16,000 ppm (p≤0.01), with a significant dose-related relationship (p≤0.01). Microscopically, most of the neoplasias among male mice treated with Sucralose at 2,000 to 16,000 ppm are leukemias involving lungs, liver, spleen, lymph nodes, and bone marrow with diffuse permeation of vessels and extensive infiltration of adjacent tissues<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## PROTOCOL

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

Sucralose is pulverized in a standard pelleted diet at concentrations 0, 500, 2,000, 8,000, and 16,000 ppm and is administered to five groups of male (n=117, 114, 90, 66, and 70, respectively) and five groups female (n=102, 105, 60, 65, and 64, respectively) Swiss mice from the 12th day of fetal life until death<sup>[1]</sup>.

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

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## REFERENCES

[1]. M S, et al. Sucralose administered in feed, beginning prenatally through lifespan, induces hematopoietic neoplasias in male swiss mice. Int J Occup Environ Health. 2016 Jan;22(1):7-17.

[2]. Nabanita Kundu, et al. Sucralose promotes accumulation of reactive oxygen species (ROS) and adipogenesis in mesenchymal stromal cells. Stem Cell Res Ther. 2020 Jun 26;11(1):250.

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**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