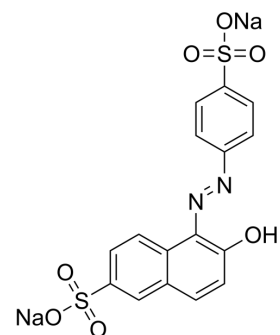


Sunset Yellow FCF

Cat. No.:	HY-D0249
CAS No.:	2783-94-0
Molecular Formula:	C ₁₆ H ₁₀ N ₂ Na ₂ O ₇ S ₂
Molecular Weight:	452.37
Target:	Fluorescent Dye
Pathway:	Others
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	H ₂ O : 100 mg/mL (221.06 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
		Concentration			
		1 mM	2.2106 mL	11.0529 mL	22.1058 mL
		5 mM	0.4421 mL	2.2106 mL	4.4212 mL
	10 mM	0.2211 mL	1.1053 mL	2.2106 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 (110.53 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	Sunset Yellow FCF (Orange Yellow S) is an orange azo dye with a maximum absorption wavelength of 480 nm. Sunset Yellow FCF can be used in food, cosmetics and pharmaceuticals ^{[1][2][3]} .
In Vitro	Sunset Yellow FCF (250 µg/mL, 72 h) decreases the proliferation of isolated mouse spleen cells induced by LPS (HY-D1056) and inhibits the proliferation of isolated mouse spleen cells in heterogenic mixed lymphocyte response ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Cytotoxicity Assay ^[2]
	Cell Line: Splenocytes
	Concentration: 10, 25, 50, 100, 250, 500, 1000 µg/mL
	Incubation Time: 72 h

	Result:	The highest non-cytotoxic dose was 250 µg/mL.
In Vivo	Sunset Yellow FCF (0.325 mg/kg, orally, for 3 consecutive weeks) can induce chromosomal aberrations in somatic and germ cells and morphological abnormalities of sperm in mice ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Male white Swiss mice (8-12 weeks, 20-25 g) ^[1]
	Dosage:	0.325 mg/kg
	Administration:	p.o.
	Result:	Increased frequency of SCE's and chromosomal aberrations in both somatic and germ cells. Increased morphological sperm abnormalities and DNA fragmentation.

CUSTOMER VALIDATION

- Microbiol Spectr. 2023 Sep 21;e0267123.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Ghoneim M M, et al. Electro-Fenton oxidation of Sunset Yellow FCF azo-dye in aqueous solutions. Desalination, 2011, 274(1-3): 22-30.
- [2]. Yadav A, et al. Sunset yellow FCF, a permitted food dye, alters functional responses of splenocytes at non-cytotoxic dose. Toxicol Lett. 2013 Mar 13;217(3):197-204.
- [3]. Sayed HM, et al. The modifying effect of selenium and vitamins A, C, and E on the genotoxicity induced by sunset yellow in male mice. Mutat Res. 2012 May 15;744(2):145-53.

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