

Product Data Sheet

Product Name: FEMA 4774
Cat. No.: GC66047

Chemical Properties

Cas. No. 1359963-68-0

Formula $C_{19}H_{25}N_3O_4$ M.Wt 359.42

Solubility DMSO : ≥ 41.67 mg/mL (115.94 mM) Storage Store at $-20^{\circ}C$

General For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic tips bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue Condition ice upon request.

Structure

Background

FEMA 4774 is a positive allosteric modulator of taste receptors **T1R2** and **T1R3**, two subunits of the human sweet taste receptor. FEMA 4774 is also used as a sucrose sweetness enhancer^[1].

FEMA 4774 (0-50 μ M) induces a dose-dependent decrease in the EC_{50} value of sucrose and significantly enhances the affinity of sucrose for its binding site with an α (effect of modulator on agonist affinity) value of 30 in the human sweet receptor cells^[1].

FEMA 4774 (S9632) (oral gavage, 500-2000 mg/kg) does not cause a dose-dependent increase in polychromatic erythrocytes and induces micronuclei formation at dose levels up to 2000 mg/kg in Swiss albino (CD-1) mice^[2].

The pharmacokinetic parameters of FEMA 4774 (S9632) in Male and Female Sprague-Dawley Rats

Route	Day	Dose (mg/kg)	Sex	C_{max} (ng/mL) \pm SD	T_{max} (hr)	$t_{1/2}$ (hr)	AUC_{0-last} (ng•hr/mL)	$AUC_{0-last}/dose$ (ng•hr/mL/mg/kg)	%F
iv	1	1.0	M	2036.7 \pm 281.9	0.03	0.19	330.6 \pm 58	330.6	-
			F	2625.8 \pm 679.9	0.03	0.27	411.9 \pm 116.3	411.9	-
Oral gavage	1	10	M	12.9 \pm 3.2	0.25	1.21	17.9 \pm 2.3	1.79	0.54
			F	34.0 \pm 3.9	0.25	1.17	49.2 \pm 7.8	4.92	1.19
	30	M	90.0 \pm 23.9	0.33	0.88	90.8 \pm 11.0	3.03	0.92	
		F	62.4 \pm 25.9	0.42	1.06	95.0 \pm 20.4	3.17	0.77	

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

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	100	M	147.2±86.3	0.33	0.71	176.2±73.8	1.76	0.53
		F	268.5±90.7	0.25	0.99	341.1±81.0	3.41	0.83
Oral gavage ⁷	10	M	16.2±3.6	0.50	0.84	48.1±33.2	4.81	-
		F	32.7±9.7	0.33	1.17	58.9±25.4	5.89	-
	30	M	74.5±16.2	0.33	0.94	86.0±8.7	2.87	-
		F	77.1±41.7	0.25	1.39	106.8±8.7	3.56	-
	100	M	117.9±15.3	0.25	0.72	185.3±15.3	1.85	-
		F	189.7±79.5	0.25	0.89	278.9±79.0	2.79	-

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