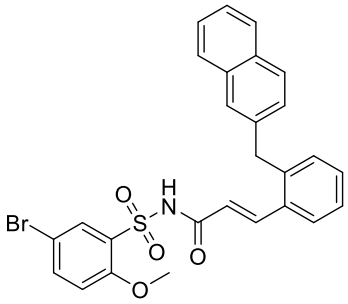
Product data sheet

MedKoo Cat#: 532097 Name: L-798,106 CAS: 244101-02-8 Chemical Formula: $C_{27}H_{22}BrNO_4S$ Exact Mass: 535.0453 Molecular Weight: 536.44	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
L-798,106 is a potent and highly selective EP3 receptor antagonist.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	20.0	37.28
DMSO	24.55	45.76

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.86 mL	9.32 mL	18.64 mL
5 mM	0.37 mL	1.86 mL	3.73 mL
10 mM	0.19 mL	0.93 mL	1.86 mL
50 mM	0.04 mL	0.19 mL	0.37 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Tian Y, Yang T, Yu S, Liu C, He M, Hu C. Prostaglandin E2 increases migration and proliferation of human glioblastoma cells by activating transient receptor potential melastatin 7 channels. J Cell Mol Med. 2018 Dec;22(12):6327-6337. doi: 10.1111/jcmm.13931. Epub 2018 Oct 19. PMID: 30338939; PMCID: PMC6237613.

2. Li C, Liu X, Liu Y, Zhang E, Medepalli K, Masuda K, Li N, Wikenheiser-Brokamp KA, Osterburg A, Borchers MT, Kopras EJ, Plas DR, Sun J, Franz DN, Capal JK, Mays M, Sun Y, Kwiatkowski DJ, Alayev A, Holz MK, Krueger DA, Siroky BJ, Yu JJ. Tuberin Regulates Prostaglandin Receptor-Mediated Viability, via Rheb, in mTORC1-Hyperactive Cells. Mol Cancer Res. 2017 Oct;15(10):1318-1330. doi: 10.1158/1541-7786.MCR-17-0077. Epub 2017 Jul 14. PMID: 28710231.

In vivo study

1. Hu CJ, Wang YW, Huang WX, Xia YB. E prostanoid receptor-3 promotes oxidized low-density lipoprotein-induced human aortic smooth muscle cells inflammation. ESC Heart Fail. 2022 Dec 28. doi: 10.1002/ehf2.14264. Epub ahead of print. PMID: 36578105.

2. Clarke DL, Giembycz MA, Patel HJ, Belvisi MG. E-ring 8-isoprostanes inhibit ACh release from parasympathetic nerves innervating guinea-pig trachea through agonism of prostanoid receptors of the EP3-subtype. Br J Pharmacol. 2004 Feb;141(4):600-9. doi: 10.1038/sj.bjp.0705648. Epub 2004 Jan 26. PMID: 14744812; PMCID: PMC1574232.

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7. Bioactivity

Biological target:

L-798106 is potent and highly selective prostanoid EP_3 receptor antagonist (K_i=0.3 nM), it also has micromolar activities at the EP_4, EP_1 and EP_2 receptors with K_i values of 916 nM, >5000 nM and >5000 nM, respectively.

In vitro activity

The PGE2 EP3 receptor antagonist L-798106 abrogated the PGE2 stimulatory effect, while EP3 agonist 17-phenyl trinor prostaglandin E2 (17-pt-PGE2) mimicked the effect of PEG2 on TRPM7.

Reference: J Cell Mol Med. 2018 Dec;22(12):6327-6337. https://pubmed.ncbi.nlm.nih.gov/30338939/

In vivo activity

L-798,106, a novel and highly selective EP(3)-receptor antagonist, produced a parallel shift to the right of the concentration-response curves that described the inhibitory action of sulprostone on EFS-evoked contractile responses in guinea-pig vas deferens (an established EP(3)-receptor-expressing tissue), from which a mean pA(2) of 7.48 was derived. On guinea-pig trachea, L-798,106 also antagonised sulprostone-induced inhibition of EFS-induced twitch responses, with similar potency (mean pA(2)=7.82).

Reference: Br J Pharmacol. 2004 Feb;141(4):600-9. https://pubmed.ncbi.nlm.nih.gov/14744812/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.