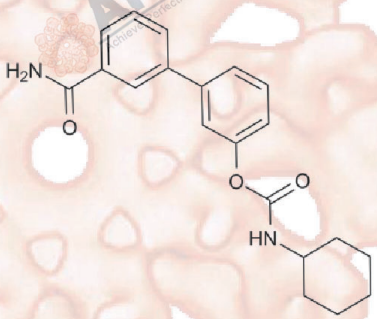
Product Data Sheet

URB597



Cat. No.:	A4372
CAS No.:	546141-08-6
Formula:	C20H22N2O3
M.Wt:	338.4
Synonyms:	FAAH Inhibitor II, URB-597, URB 597, KDS-4103
Target:	Metabolism
Pathway:	FAAH
Storage:	Store at -20°C

Solvent & Solubility

insoluble in H2O; ⩾16.9 mg/mL in DMSO; ⩾4.55 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro — Preparing Stock Solutions

Concentration \ Mass (Solvent)	1mg	5mg	10mg
1 mM	2.9551 mL	14.7754 mL	29.5508 mL
5 mM	0.5910 mL	2.9551 mL	5.9102 mL
10 mM	0.2955 mL	1.4775 mL	2.9551 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	FAAH inhibitor,potent and selective
IC_{50} & Target	4.6 nM (brain membranes) (FAAH), 0.5 nM (intact neurons) (FAAH)

In Vitro

Cell Viability Assay

Cell Line:	Rat brain cortical neurons
Preparation method:	The solubility of this compound in DMSO is > 16.9 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

	Reacting conditions:	10 nM
	Applications:	URB597 selectively inhibited the breakdown of [3H]anandamide without reducing its carrier-mediated uptake, which caused non-metabolized [3H]anandamide to accumulate in, and finally exit from the cortical neurons. The accumulated [3H]anandamide was released from the neurons back into the media via passive diffusion rather than reverse transport.
In Vivo	**Animal experiment**	
	Animal models:	Rats
	Dosage form:	0.3 mg/kg; i.p.
	Applications:	In rats, URB597 rapidly inhibited FAAH (< 15 mins) and its inhibitory effect could last for over 12 hrs. Meanwhile, the contents of anandamide and other fatty-acid ethanolamides were significantly elevated in brain. In addition, URB597 markedly enhanced the hypothermic response caused by a sub-threshold dose of anandamide (5 mg/kg; i.p.). However, when injected alone, URB597 showed no effect on body temperature.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Daniele Piomelli, Giorgio Tarzia, Andrea Duranti, Andrea Tontini, Marco Mor, Timothy R. Compton, Oliver Dasse, Edward P. Monaghan, Jeff A. Parrot and David Putman. Pharmacological profile of the selective FAAH inhibitor KDS-4103 (URB597). CNS Drug Review 2006; 12(1): 21-38.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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