

VU0487836

## Chemical Properties

CAS No. :	1632301-78-0
Formula:	C17H13FO3
Molecular Weight:	284.28
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

## Biological Description

Description	VU0487836 is a selective cyclooxygenase-1 (COX-1) inhibitor with an IC <sub>50</sub> of 0.36 μM against ovine-derived COX-1. VU0487836 serves as a prototype for the development of radiological imaging agents targeting COX-1 for ovarian cancer research, and VU0487836 is utilized in biochemical research focused on prostaglandin synthesis pathways and COX-1-associated molecular imaging development.
Targets(IC <sub>50</sub> )	COX
In vitro	<p>Methods: The inhibitory activity of VU0487836 against purified enzymes and intracellular COX-1, COX-2 in tumor cells was determined in vitro, and the corresponding IC<sub>50</sub> values were measured.</p> <p>Results:</p> <p>1.VU0487836 exerted potent and selective inhibition on ovine COX-1 with an IC<sub>50</sub> of 0.36 μM, and showed no obvious inhibitory effect on murine COX-2 (IC<sub>50</sub> &gt; 25 μM).</p> <p>2.In human ovarian cancer OVCAR3 cells, VU0487836 selectively inhibited COX-1 with an IC<sub>50</sub> of 0.18 μM, while it had no activity against COX-2 in human 1483 head and neck squamous cell carcinoma cells (IC<sub>50</sub> &gt; 5 μM) [1].</p>

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5177 mL	17.5883 mL	35.1766 mL
5 mM	0.7035 mL	3.5177 mL	7.0353 mL
10 mM	0.3518 mL	1.7588 mL	3.5177 mL
50 mM	0.0704 mL	0.3518 mL	0.7035 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Uddin MJ, et al. Design of Fluorine-Containing 3,4-Diarylfuran-2(5H)-ones as Selective COX-1 Inhibitors. ACS Med Chem Lett. 2014 Oct 12;5(11):1254-8.

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