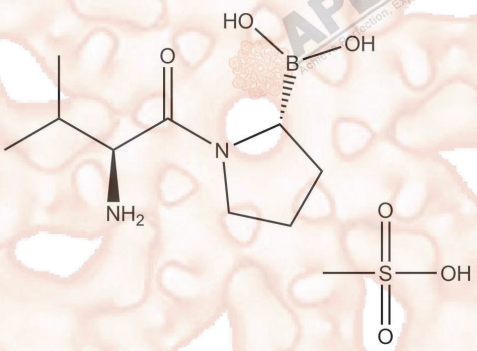
Product Data Sheet

Talabostat mesylate

Cat. No.:	B3941
CAS No.:	150080-09-4
Formula:	C10H23BN2O6S
M.Wt:	310.18
Synonyms:	
Target:	Proteases
Pathway:	DPP-4
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

≥11.45mg/mL in DMSO

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	3.2239 mL	16.1197 mL	32.2393 mL
5 mM	0.6448 mL	3.2239 mL	6.4479 mL
10 mM	0.3224 mL	1.6120 mL	3.2239 mL

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

Biological Activity

Shortsummary	orally active, specific inhibitor of DPP4
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	MDA MB-435 cells and human breast cancer cell lines WTY-1 and WTY-6
Preparation method:	This compound is soluble in DMSO. 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 μM

	Applications:	In MDA MB-231 cells that do not express FAP, Talabostat showed no effect in FAP activity assay. In WTY-1 and WTY-6 cells that express wild type and active FAP to high levels, Talabostat significantly inhibited FAP activity.
In Vivo	**Animal experiment**	
	Animal models:	SCID mice bearing human breast cancer cell lines WTY-1 and WTY-6, as well as MDA MB-435 cells
	Dosage form:	1.3 mg/kg; p.o.; q.d.
	Applications:	In SCID mice bearing human breast cancer cell lines WTY-1 and WTY-6, as well as MDA MB-435 cells, Talabostat slightly slowed tumor growth. In mice bearing MDA MB-435 cells, Talabostat delayed production of measurable tumors by nearly 12 days, which however, was not statistically different.
	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

1. Chen M, Lei X, et al. "Pericyte-targeting prodrug overcomes tumor resistance to vasculardisrupting agents." J Clin Invest. 2017 Oct 2;127(10):3689-3701.PMID:28846068
2. Feng X, Wang Q, et al. "A synthetic urinary probe-coated nanoparticles sensitive to fibroblast activation protein α for solid tumor diagnosis." Int J Nanomedicine. 2017 Jul 27;12:5359-5372.PMID:28794628

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References

[1]. Huang Y, Simms AE, Mazur A, Wang S, León NR, Jones B, Aziz N, Kelly T. Fibroblast activation protein-α promotes tumor growth and invasion of breast cancer cells through non-enzymatic functions. Clin Exp Metastasis. 2011 Aug;28(6):567-79.

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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