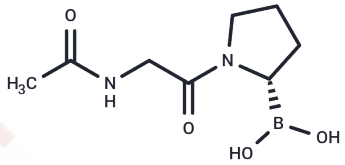
Data Sheet (Cat.No.T10227)

TargetMol

Ac-Gly-BoroPro

Chemical Properties



CAS No. :	886992-99-0
Formula:	C8H15BN2O4
Molecular Weight:	214.03
Storage:	Keep away from moisture Powder: -20°C for 3 years Actual storage temperature shall be subject to the COA.

Biological Description

Description	Ac-Gly-BoroPro is a selective FAP inhibitor with a Ki of 23 nM.
Targets(IC50)	Others
In vitro	Ac-Gly-BoroPro selectively inhibits FAP relative to other prolyl peptidases. FAP reacts readily with submicromolar concentrations of Ac-Gly-BoroPro, reaching steady-state inhibition levels rapidly (Ki: 23 nM). In contrast, DPP-4 requires higher Ac-Gly-BoroPro concentrations for inhibition and a longer time to reach steady-state inhibition levels (Ki=377±18 nM). Ac-Gly-BoroPro inhibits other prolyl peptidases (DPP-7, DPP-8, DPP-9, prolyl oligopeptidase, and acylpeptide hydrolase) with Ki values ranging from 9- to 5400-fold higher than that for FAP inhibition.
Kinase Assay	Ki values for inhibition of proteases by Ac-Gly-BoroPro are determined using the method of progress curves for analysis of tight-binding competitive inhibitors. Various concentrations of Ac-Gly-BoroPro are reacted with FAP (1.0 nM) and DPP-4 (0.1 nM) in the presence of Ala-Pro-AFC (500 μM for FAP; 100 μM for DPP-4), and time-dependent inhibition of each protease is monitored. Reactions contained inhibitor concentrations at least 20-fold greater than protease concentrations, such that the protease-inhibitor complex does not significantly deplete the free inhibitor.

Solubility Information

Solubility	DMSO: 50 mg/mL (233.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (11.68 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.6722 mL	23.3612 mL	46.7224 mL
5 mM	0.9344 mL	4.6722 mL	9.3445 mL
10 mM	0.4672 mL	2.3361 mL	4.6722 mL
50 mM	0.0934 mL	0.4672 mL	0.9344 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

Edosada CY, et al. Selective inhibition of fibroblast activation protein protease based on dipeptide substrate specificity. J Biol Chem. 2006 Mar 17;281(11):7437-44.