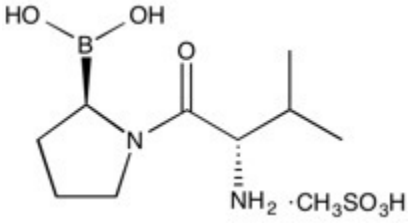
Tribioscience

Talabostat mesylate, Pyroptosis inducer; Inflammasome activator

Catalog	Unit
TBI4005-10MG	10 mg
TBI4005-50MG	50 mg

Product Details

Formal Name: ((2R)-1-((2S)-2-Amino-3-methylbutanoyl)pyrrolidin-2-yl)boronic acid methanesulfonate
Alternate Names: Val-boroPro; PT-100
Molecular Formula: $C_9H_{19}BN_2O_3 \cdot CH_3SO_3H$
Formula Weight: 310.18
CAS Number: 150080-09-4
Purity: >98%
Formulation: powder
Solubility: Soluble in DMSO (up to at least 25 mg/ml)
Storage: -20°C
Stability: ≥ 1 year.



Applications

Pyroptosis inducer; Inflammasome activator

Functions

Talabostat mesylate is a non-selective inhibitor of the S9 family of serine proteases (IC50's: DPPIV = <4nM, DPP8 = 4nM, DPP9 = 11nM, QPP = 310nM, FAP = 560nM, PEP = 390nM). Toxicity caused by DPP8/9 inhibition observed with non-selective DPPIV inhibitors limits their use as a diabetes treatment. However, Talabostat displays potent antitumor effects dependent on an intact host immune response. It mediates tumor regression by accelerating the expansion of tumor-specific T cells. Additionally, DPP8/9 inhibition by Talabostat activates the proprotein form of Caspase-1 leading to a proinflammatory form of cell death in monocytes and macrophages - pyroptosis. Pyroptosis induction by DPP8/9 inhibition has been shown to be caused by activation of the inflammasome sensor protein Nlrp1b.

Application Procedures

First dissolved in DMSO (up to at least 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 1 month.

For research use only.

Tribioscience, Inc. | 365 San Aleso Ave, Sunnyvale, CA 94085 | Phone: 408-498-0197
info@tribioscience.com Fax: 650-618-5498 www.tribioscience.com