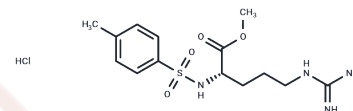


TAME hydrochloride

Chemical Properties

CAS No. :	1784-03-8
Formula:	C ₁₄ H ₂₃ ClN ₄ O ₄ S
Molecular Weight:	378.87
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	TAME hydrochloride (Tos-Arg-OMe HCl) is a kind of amino acid derivatives.
Targets(IC50)	Amino Acids and Derivatives,APC/C
Kinase Assay	This clonal cell line, referred to as HEK 293 4.0-7 cells, are used in a high-throughput screening format to detect agonists and allosteric activators of the Ca ²⁺ receptor. Changes in the concentration of cytoplasmic [Ca ²⁺] _i provide a quantitative and functional assessment of Ca ²⁺ receptor activity in these cells and the results using this assay parallel those obtained using a homologous expression system of bovine parathyroid cells. On-line continuous measurements of fluorescence in fluo-3- or fura-2-loaded HEK 293 4.0-7 cells are obtained using a custom-built spectrofluorimeter or a fluorescence imaging plate reader instrument. NPS-2143 is incubated with cells for 1 minute before increasing the concentration of extracellular Ca ²⁺ from 1.0 mM to 1.75 mM. NPS-2143 is tested individually at a concentration of 100 µg/mL (20 µM-80 µM) and those causing more than a 40% inhibition of the control response are considered to be biologically active. To determine the potencies (IC ₅₀) of NPS-2143 with biological activity, concentration-response curves are obtained and then, as an initial assessment of selectivity, the effects of NPS-2143 on [Ca ²⁺] _i evoked by other G protein-coupled receptors are examined at a concentration several times their IC ₅₀ . Wild-type HEK 293 cells (and HEK 293 4.0-7 cells) express receptors for thrombin, bradykinin, and ATP, which couple to the mobilization of intracellular Ca ²⁺ . These responses can be studied to quickly assess any nonselective action of compounds on G protein-coupled receptors. Additional assays for selectivity include HEK 293 cells engineered to express receptors most homologous in sequence and topology to the Ca ²⁺ receptor. These include native or chimeric receptors for various metabotropic glutamate and γ-aminobutyric acid type B receptors (GABABRs). Chimeric receptors are created using partial sequences of metabotropic glutamate receptors and Ca ²⁺ receptors, engineered to couple to activation of phospholipase C and release of intracellular Ca ²⁺ in HEK 293 cells. NPS-2143 lacking pan-activity are then subjected to structural modifications and their potencies and selectivities monitored using these HEK 293 4.0-7 cell assays in an iterative process.

Solubility Information

Solubility	DMSO: 60 mg/mL (158.37 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 mg/mL (5.28 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6394 mL	13.1971 mL	26.3943 mL
5 mM	0.5279 mL	2.6394 mL	5.2789 mL
10 mM	0.2639 mL	1.3197 mL	2.6394 mL
50 mM	0.0528 mL	0.2639 mL	0.5279 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

Ma Y, et al. Differential effects of Mg(ii) and N(alpha)-4-tosyl-L-arginine methyl ester hydrochloride on the recognition and catalysis in ATP hydrolysis. Dalton Trans. 2008 Feb 28;(8):1081-6.

Zeng X, et al. An APC/C inhibitor stabilizes cyclin B1 by prematurely terminating ubiquitination. Nat Chem Biol. 2012 Feb 26;8(4):383-92.

Zeng X, et al. Pharmacologic inhibition of the anaphase-promoting complex induces a spindle checkpoint-dependent mitotic arrest in the absence of spindle damage. Cancer Cell. 2010 Oct 19;18(4):382-95.

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