Data Sheet (Cat.No.T7084)

TargetMol

2-Bromo-4'-hydroxyacetophenone

Chemical Properties

CAS No. : 2491-38-5

Formula: C8H7BrO2

Molecular Weight: 215.04

Storage: Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	2-Bromo-4'-hydroxyacetophenone(PTP Inhibitor I) is a cell-permeable, protein tyrosine phosphatase (PTP) inhibitor that covalently blocks the catalytic domain of the Src homology region 2 domain-containing phosphatase (SHP-1(ΔSH2)) with a Ki value of 43 μM and PTP1B with a Ki value of 42 μM [1]. SHP-1 and PTP1B both have known roles in regulating insulin signaling as well as myeloid and lymphoid cell differentiation, making inhibitors of these phosphatases of interest in diabetes, cancer, allergy, and inflammation research [2].
Targets(IC50)	Phosphatase
Cell Research	Cell lines: human B cells. Concentrations: 30, 100, 300, 1000 μM. Method: After incubation with varying concentrations of PTP Inhibitor I for 3 min, the cells are lysed, and the cellular proteins are separated on an SDS-PAGE gel, followed by western blot analysis.

Solubility Information

Solubility	Ethanol: 20 mg/mL (93.01 mM),Sonication is recommended. H2O: Insoluble, DMSO: 60 mg/mL (279.02 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 (9.3 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	4.6503 mL	23.2515 mL	46.503 mL
5 mM	0.9301 mL	4.6503 mL	9.3006 mL
10 mM	0.465 mL	2.3251 mL	4.6503 mL
50 mM	0.093 mL	0.465 mL	0.9301 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

Arabaci, G., et al. αHaloacetophenone derivatives as photoreversible covalent inhibitors of protein tyrosine phosphatases. Journal of the American Chemical Society 121(21), 5085-5086 (1999).
Wu R, Wang C, Li Z, et al. SOX2 promotes resistance of melanoma with PD-L1 high expression to T-cell-mediated cytotoxicity that can be reversed by SAHA. Journal for immunotherapy of cancer. 2020 Nov;8(2):e001037.
Heneberg, P. Use of protein tyrosine phosphatase inhibitors as promising targeted therapeutic drugs. Current Medicinal Chemistry 16(6), 706-733 (2009).
Wu R, Wang C, Li Z, et al. SOX2 promotes resistance of melanoma with PD-L1 high expression to T-cell-mediated cytotoxicity that can be reversed by SAHA[J]. Journal for immunotherapy of cancer. 2020, 8(2).

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