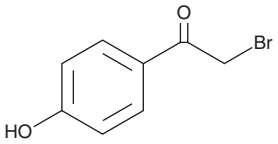
PRODUCT INFORMATION

PTP Inhibitor I

Item No. 19766

CAS Registry No.:	2491-38-5
Formal Name:	2-bromo-1-(4-hydroxyphenyl)-ethanone
Synonyms:	α-Bromo-4-hydroxyacetophenone, 2-Bromo-4'-hydroxyacetophenone, 4-Hydroxyphenacyl bromide, Protein Tyrosine Phosphatase Inhibitor I SHP-1 Inhibitor II
MF:	$C_8H_7BrO_2$
FW:	215.0
Purity:	≥98%
UV/Vis.:	λ_{max}: 226, 290 nm
Supplied as:	A crystalline solid
Storage:	Room temperature
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PTP Inhibitor I is supplied as a crystalline solid. A stock solution may be made by dissolving the PTP inhibitor I in the solvent of choice, which should be purged with an inert gas. PTP Inhibitor I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PTP inhibitor I in these solvents is approximately 20 mg/ml.

PTP Inhibitor I is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PTP inhibitor I should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PTP Inhibitor I has a solubility of approximately 0.09 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PTP inhibitor I is an inhibitor of Src homology region 2 domain-containing phosphatase 1 (SHP-1) and protein tyrosine phosphatase 1B (PTP1B; K_is = 43 and 42 µM for the SHP-1 catalytic domain and full-length PTP1B, respectively).[1] It inhibits endothelial cell network formation of human umbilical vein endothelial cells (HUVECs) cultured with normal human dermal fibroblasts (IC_{50} = 3.7 µM).[2] PTP inhibitor I has been used in the synthesis of compounds with antibacterial, antifungal, fungicidal, and anticancer activities.[3]

References

1. Arabaci, G., Guo, X.-C., Beebe, K.D., *et al.* α-Haloacetophenone derivatives as photoreversible covalent inhibitors of protein tyrosine phosphatases. *J. Am. Chem. Soc.* **121(21)**, 5085-5086 (1999).
2. Sylvest, L., Bendiksen, C.D., and Houen, G. Phosphatase inhibitors with anti-angiogenic effect *in vitro*. *APMIS* **118(1)**, 49-59 (2009).
3. Prasad, Y.R., Kumar, G.V.S., and Chandrashekar, S.M. Synthesis and biological evaluation of novel 4,5-dihydropyrazole derivatives as potent anticancer and antimicrobial agents. *Med. Chem. Res.* **22**, 2061-2078 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM