PRODUCT INFORMATION



PTP Inhibitor III

Item No. 19059

CAS Registry No.:	29936-81-0	
Formal Name:	2-[4-(2-bromoacetyl)phenoxy]-acetic acid	
Synonyms:	α-Bromo-4-(carboxymethoxy)acetophenone,	0
	Protein Tyrosine Phosphatase Inhibitor III	∧ ⊥ Br
MF:	C ₁₀ H ₉ BrO ₄	
FW:	273.1	
Purity:	≥95%	HO
UV/Vis.:	λ _{max} : 221, 281 nm	
Supplied as:	A crystalline solid	0
Storage:	-80°C	
Stability:	≥2 years	
Information represents	the product specifications. Batch specific analytical res	ults are provided on each certificate of analysis.

Laboratory Procedures

PTP Inhibitor III is supplied as a crystalline solid. A stock solution may be made by dissolving the PTP inhibitor III in the solvent of choice, which should be purged with an inert gas. PTP Inhibitor III is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PTP inhibitor III in these solvents is approximately 30, 25, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PTP inhibitor III can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PTP inhibitor III in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PTP Inhibitor III is an α -haloacetophenone derivative that acts as a photoreversible covalent inhibitor of protein tyrosine phosphatases (PTPs).¹ It binds the catalytic domain of SHP-1 (K_i = 184μ M) and covalently reacts with free thiols, a reaction that is reversible with irradiation (350 nm). PTP Inhibitor III is cell permeable and inhibits a broad range of PTPs.²

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. Kanda, M., Ihara, Y., Murata, H., et al. Glutaredoxin modulates platelet-derived growth factor-dependent cell signaling by regulating the redox status of low molecular weight protein-tyrosine phosphatase. J. Biol. Chem. 281(39), 28518-28528 (2006).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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