

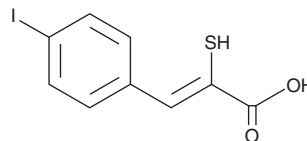
PRODUCT INFORMATION



PD 150606

Item No. 13859

CAS Registry No.: 179528-45-1
Formal Name: 3-(4-iodophenyl)-2Z-mercapto-2-propenoic acid
MF: C₉H₇IO₂S
FW: 306.1
Purity: ≥98%
UV/Vis.: λ_{max}: 259, 320 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

PD 150606 is supplied as a solid. A stock solution may be made by dissolving the PD 150606 in the solvent of choice. PD 150606 is soluble in organic solvents such as methanol and DMSO.

PD 150606 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

The calpains are a family of calcium-dependent cysteine proteases which catalyze limited proteolysis of substrates.¹ PD 150606 is a selective, cell-permeable inhibitor of calpains (K_i = 0.21 μM for μ-calpain (calpain-1) and 0.37 μM for m-calpain (calpain-2)).² PD 150606 is commonly used to elucidate the roles for calpains in cell function, particularly in how they relate to apoptosis.³⁻⁵

References

1. Sorimachi, H. and Ono, Y. Regulation and physiological roles of the calpain system in muscular disorders. *Cardiovasc. Res.* **96**, 11-22 (2012).
2. Wang, K.K.W., Nath, R., Posner, A., *et al.* An α-mercaptoacrylic acid derivative is a selective nonpeptide cell-permeable calpain inhibitor and is neuroprotective. *Proc. Natl. Acad. Sci. USA* **93**, 6687-6692 (1996).
3. Muruganandan, S. and Cribb, A.E. Calpain-induced endoplasmic reticulum stress and cell death following cytotoxic damage to renal cells. *Toxicol. Sci.* **94(1)**, 118-128 (2006).
4. Norberg, E., Gogvadze, V., Ott, M., *et al.* An increase in intracellular Ca²⁺ is required for the activation of mitochondrial calpain to release AIF during cell death. *Cell Death Differ.* **15**, 1857-1864 (2008).
5. Debiasi, R.L., Squier, M.K.T., Pike, B., *et al.* Reovirus-induced apoptosis is preceded by increased cellular calpain activity and is blocked by calpain inhibitors. *J. Virol.* **73(1)**, 695-701 (1999).

WARNING

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

SAFETY 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.

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