

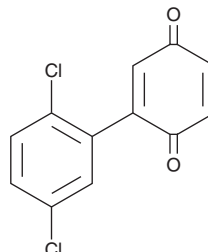
PRODUCT INFORMATION



TPI-1

Item No. 22480

CAS Registry No.: 79756-69-7
Formal Name: 2-(2,5-dichlorophenyl)-2,5-cyclohexadiene-1,4-dione
Synonym: Tyrosine Phosphatase Inhibitor 1
MF: C₁₂H₆Cl₂O₂
FW: 253.1
Purity: ≥95%
UV/Vis.: λ_{max}: 229 nm
Supplied as: A crystalline 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

TPI-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the TPI-1 in the solvent of choice. TPI-1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of TPI-1 is approximately 1 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

Description

TPI-1 is an inhibitor of protein tyrosine phosphatases.¹ TPI-1 (10 ng/ml) increases phosphorylated substrates of the phosphatase SHP-1 in Jurkat T cells, including pLck-pY394, pZap70, and pSlp76. It is selective for SHP-1 over SHP-2, having low activity at the SHP-2 substrate pERK1/2. It increases pLck-pY394 levels by approximately 3.3-fold and increases the number of IFN-γ⁺ cells in mouse spleen *ex vivo* following a dose of approximately 3 mg/kg. Oral administration of TPI-1 (3 mg/kg per day) inhibits tumor growth in a B16 melanoma mouse xenograft model.

Reference

1. Kundu, S., Fan, K., Cao, M., *et al.* Novel SHP-1 inhibitors tyrosine phosphatase inhibitor-1 and analogs with preclinical anti-tumor activities as tolerated oral agents. *J. Immunol.* **184**(11), 6529-6536 (2010).

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.

WARRANTY AND LIMITATION OF REMEDY

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