Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

IPA-3

Catalog No: tcsc1432

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
42521-82-4

Formula:
$C_{20}H_{14}O_2S_2$

Pathway:
Cytoskeleton;Cell Cycle/DNA Damage

Target:
PAK;PAK

Purity / Grade:
>98%

Solubility:
H2O :

Observed Molecular Weight:
350.45

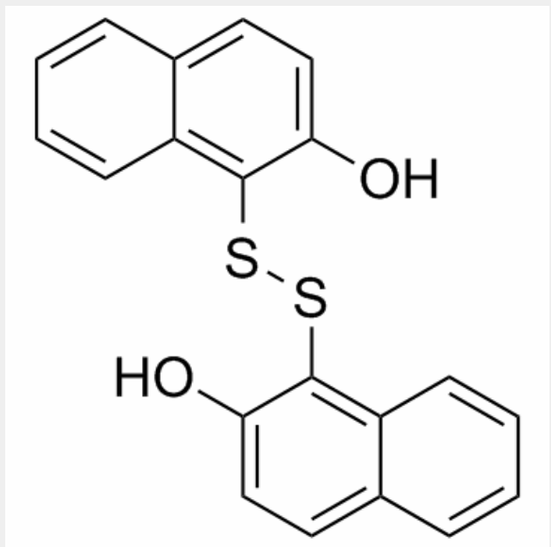
Product Description

IPA-3 is a selective non-ATP competitive **PAK1** inhibitor with **IC_{50}** of 2.5 μM, and shows no inhibition to group II PAKs (PAKs 4-6).

In Vitro: IPA-3 inhibits Pak1 activation in part by binding covalently to the regulatory domain of Pak1. IPA-3 binds Pak1 covalently in

Copyright 2021 Taiclone Biotech Corp.

a time- and temperature-dependent manner. IPA-3 prevents binding of the Pak1 activator Cdc42. IPA-3 binds directly to the Pak1 autoregulatory domain. IPA-3 reversibly inhibits PMA-induced membrane ruffling in cells[1]. IPA-3 (2 μM, 5 μM or 20 μM) reduces cell spreading in human primary Schwann and schwannoma cells. IPA-3 treatment significantly reduces the number of adherent Schwann and schwannoma cells in a dose-dependent manner[2]. IPA-3 is a non ATP-competitive, allosteric inhibitor of p21-activated kinase 1 (Pak1). PIR3.5 is the control compound of IPA-3. IPA-3 prevents Cdc42-stimulated Pak1 autophosphorylation on Thr423. IPA-3 also prevents sphingosine-dependent Pak1 autophosphorylation. IPA-3 does not target exposed cysteine residues on Pak1. The disulfide bond of IPA-3 is critical for inhibition of Pak1 and in vitro reduction by the reducing agent dithiothreitol (DTT) abolishes Pak1 inhibition by IPA-3. IPA-3 inhibits activation of Pak1 by diverse activators, but does not inhibit preactivated Pak1. IPA-3 inhibits PDGF-stimulated Pak activation in mouse embryonic fibroblasts[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!

Copyright 2021 Taiclone Biotech Corp.