

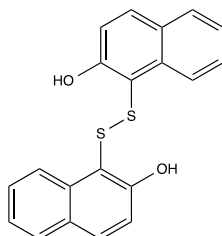
Catalog #10-4765

IPA-3

CAS# 42521-82-4

1,1'-Dithiodi-2-naphthol

Lot # FBA4041



IPA-3 is a selective allosteric inhibitor of Group 1 p21-activated kinase (PAK1 $IC_{50} = 2.5 \mu M$)¹ via covalent binding to the PAK1 regulatory domain preventing binding to the upstream activator Cdc42². IPA-3 has been shown to induce cell death in human leukemic cell lines³, significantly inhibit TGF β 1-induced prostate cell epithelial to mesenchymal transition⁴ and inhibits the growth of liver cancer cells⁵.

- 1) Deacon *et al.* (2008) *An isoform-selective, small-molecule inhibitor targets the autoregulatory mechanism of p21-activated kinase* Chem.Biol. **14** 322
- 2) Viaud and Peterson (2009) *An allosteric kinase inhibitor binds the p21-activated kinase (PAK) autoregulatory domain covalently* Mol. Cancer Ther. **8** 2559
- 3) Kuzelova *et al.* (2014) *Group 1 PAK Inhibitor IPA-3 Induces Cell Death and Affects Cell Adhesivity to Fibronectin in Human Hematopoietic Cells* PLoS One **9** e92560
- 4) Al-Azayzih *et al.* (2015) *P21 Activated Kinase-1 Mediates Transforming Growth factor b1-Induced Prostate Cancer Cell Epithelial to Mesenchymal transition* Biochim.Biophys.Acta **1853** 1229
- 5) Wong *et al.* (2013) *IPA-3 Inhibits the Growth of Liver Cancer Cells By Suppressing PAK1 and NF-kB Activation* PLoS One **8** e68843

PHYSICAL DATA

Molecular Weight:	350.45
Molecular Formula:	C ₂₀ H ₁₄ O ₂ S ₂
Purity:	>98% by TLC (Methylene chloride; R _f = 0.75)
	NMR: (Conforms)
Solubility:	DMSO (25 mg/ml)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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