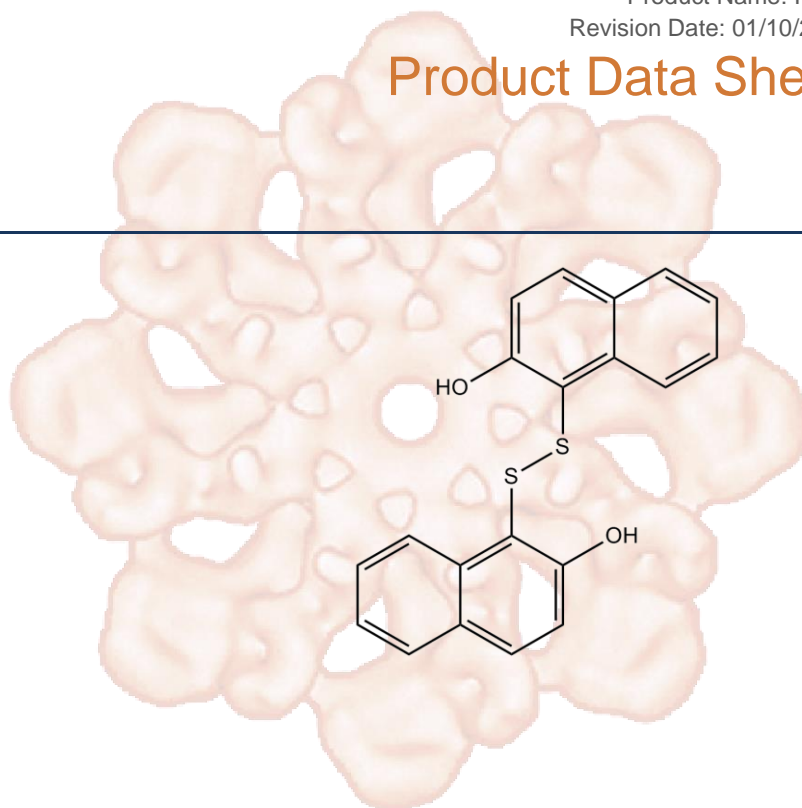


# Product Data Sheet

## IPA-3

<b>Cat. No.:</b>	B2169
<b>CAS No.:</b>	42521-82-4
<b>Formula:</b>	C <sub>20</sub> H <sub>14</sub> O <sub>2</sub> S <sub>2</sub>
<b>M.Wt:</b>	350.45
<b>Synonyms:</b>	
<b>Target:</b>	Cell Cycle/Checkpoint
<b>Pathway:</b>	PAK1
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

In Vitro

≥ 16.1mg/mL in DMSO

Preparing Stock Solutions	Solvent Concentration	Mass	1mg	5mg	10mg
	<b>1 mM</b>		2.8535 mL	14.2674 mL	28.5347 mL
	<b>5 mM</b>		0.5707 mL	2.8535 mL	5.7069 mL
	<b>10 mM</b>		0.2853 mL	1.4267 mL	2.8535 mL

Please refer to the solubility information to select the appropriate solvent.

## Biological Activity

Shortsummary

Non-ATP competitive Pak1 inhibitor

 IC<sub>50</sub> & Target

2.5 μM (Pak1)

In Vitro

### Cell Viability Assay

Cell Line:	Mouse embryonic fibroblasts
Preparation method:	The solubility of this compound in DMSO is >16.1mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	30 μM for 10 min
Applications:	IPA-3 selectively inhibits Pak1 activation in mammalian cells, and can inhibit

activation of Group I Paks in cells.

#### Animal experiment

Animal models: CD-1 mice

Dosage form: 3.5 mg/kg, i.p.

Applications: Inhibition of PAK1 by IPA-3 promoted recovery of neurological function, possibly by downregulating the expression of MMP-2, MMP-9, TNF- $\alpha$ , and IL-1 $\beta$ . IPA-3 may be a potential therapeutic drug for spinal cord injury.

Other notes: Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

In Vivo

## Product Citations

1. White SM, Avantaggiati ML, et al. "YAP/TAZ Inhibition Induces Metabolic and Signaling Rewiring Resulting in Targetable Vulnerabilities in NF2-Deficient Tumor Cells." Dev Cell. 2019 May 6;49(3):425-443.e9.PMID:31063758
2. Wang H, Liu W, et al. "Inhibitor analysis revealed that clathrin-mediated endocytosis is involved in cellular entry of type III grass carp reovirus." Virol J. 2018 May 24;15(1):92.PMID:29793525

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

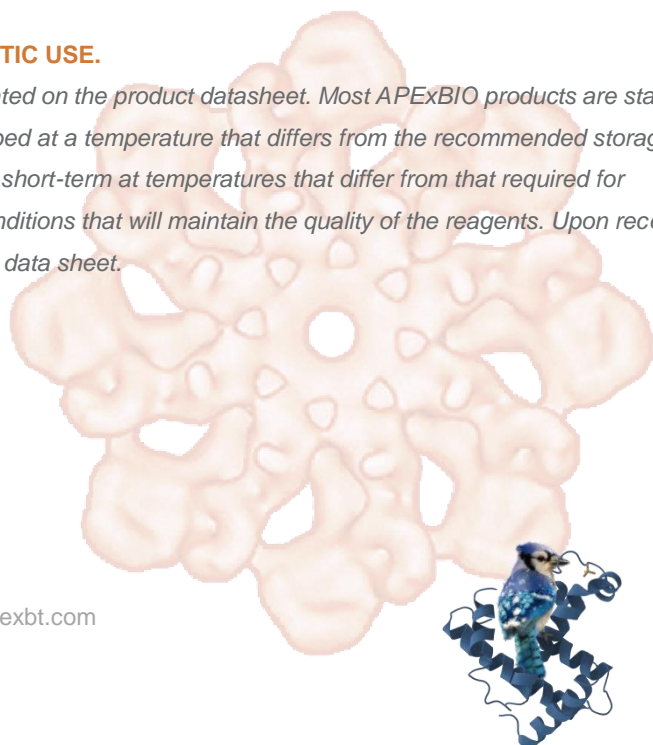
- [1] Deacon S W, Beeser A, Fukui J A, et al. An isoform-selective, small-molecule inhibitor targets the autoregulatory mechanism of p21-activated kinase. Chemistry & biology, 2008, 15(4): 322 - 331.
- [2] Ji X, Zhang Y, Zhang L, Chen H, Peng Y, Tang P. Inhibition of p21-Activated Kinase 1 by IPA-3 Promotes Locomotor Recovery After Spinal Cord Injury in Mice. Spine (Phila Pa 1976). 2016 Jun;41(11):919-25.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



## **APEX BIO Technology**

**[www.apexbt.com](http://www.apexbt.com)**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: [info@apexbt.com](mailto:info@apexbt.com)