

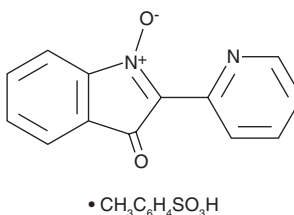
# PRODUCT INFORMATION



## PIT

Item No. 45579

**CAS Registry No.:** 56583-49-4  
**Formal Name:** 1-oxide 2-(2-pyridinyl)-3H-indol-3-one, 4-methylbenzenesulfonate  
**Synonym:** 2,2'-Pyridylisatogen tosylate  
**MF:** C<sub>13</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub> • C<sub>7</sub>H<sub>8</sub>O<sub>3</sub>S  
**FW:** 396.4  
**Purity:** ≥98%  
**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

PIT is supplied as a solid. A stock solution may be made by dissolving the PIT in the solvent of choice, which should be purged with an inert gas. PIT is sparingly soluble (1-10 mg/ml) in DMSO.

### Description

PIT is a negative allosteric modulator of the purinergic P2Y<sub>1</sub> receptor.<sup>1</sup> It selectively inhibits agonist-induced signaling for P2Y<sub>1</sub> over P2Y<sub>2</sub>, P2Y<sub>4</sub>, and P2Y<sub>11</sub> receptors in 1321N1 cells and the P2Y<sub>12</sub> receptor in CHO cells at 10 μM. PIT inhibits ATP-induced relaxation of guinea pig taenia caeci preparations and reduces periventricular white matter and cortical plate lesions induced by S-bromo-willardiine in mice.<sup>2</sup> PIT is also a spin trap that forms stable adducts with hydroxyl and superoxide radicals.<sup>3</sup>

### References

1. Gao, Z.-G., Mamedova, L., Tchilibon, S., *et al.* 2,2'-Pyridylisatogen tosylate antagonizes P2Y<sub>1</sub> receptor signaling without affecting nucleotide binding. *Biochem. Pharmacol.* **68**(2), 231-237 (2004).
2. Menton, K., Spedding, M., Gressens, P., *et al.* Role of spin trapping and P2Y receptor antagonism in the neuroprotective effects of 2,2'-pyridylisatogen tosylate and related compounds. *Eur. J. Pharmacol.* **444**(1-2), 53-60 (2002).
3. Nepveu, F., Souchard, J.P., Rolland, Y., *et al.* 2-2'-Pyridylisatogen, a selective allosteric modulator of P2 receptors, is a spin trapping agent. *Biochem. Biophys. Res. Commun.* **242**(2), 272-276 (1998).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/29/2026

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
[WWW.CAYMANCHEM.COM](http://WWW.CAYMANCHEM.COM)