

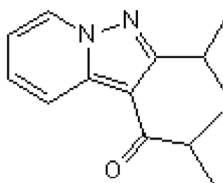
Product Name: Ibudilast**Catalog No.:** 1694**Batch No.:** 2

CAS Number: 50847-11-5

IUPAC Name: 2-Methyl-1-[2-(1-methylethyl)pyrazolo[1,5-a]pyridin-3-yl]-1-propanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₈N₂O
Batch Molecular Weight: 230.31
Physical Appearance: White solid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at RT
Batch Molecular Structure:

**2. ANALYTICAL DATA**

HPLC: Shows 99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.01	7.88	12.16
Found	73.17	7.82	12.15

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Ibudilast is a phosphodiesterase inhibitor (IC₅₀ values are 53, 35, 48, 12 and 10 μM for PDE Ia, II, III, IV and V respectively). Also inhibits leukotriene D₄ (LTD₄) and histamine-induced inositol monophosphate (IP₁) formation in guinea pig lung with no direct effect on LTD₄ receptors. Inhibits platelet aggregation and is an orally-active cerebral vasodilator, bronchodilator and antiallergic agent.

Physical and Chemical Properties:

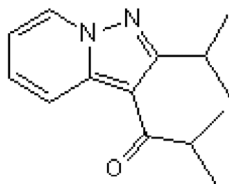
Batch Molecular Formula: C₁₄H₁₈N₂O

Batch Molecular Weight: 230.31

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Kishi et al (2001) Ibudilast: a non-selective PDE inhibitor with multiple actions on blood cells and the vascular wall. *Cardiovasc.Drug Rev.* **19** 215. PMID: 11607039.

Souness et al (1994) Possible role of cyclic AMP phosphodiesterases in the actions of ibudilast on eosinophil thromboxane generation and airways smooth muscle tone. *Br.J.Pharmacol.* **111** 1081. PMID: 8032594.

Etoh et al (1990) Inhibition by ibudilast of leukotriene D₄-induced formation of inositol phosphates in guinea-pig lung. *Br.J.Pharmacol.* **100** 564. PMID: 2117981.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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