Ibudilast
Item No. 14832

CAS Registry No.: 50847-11-5
Formal Name: 2-methyl-1-[2-(1-methylethyl)pyrazolo[1,5-a]pyridin-3-yl]-1-propanone
Synonyms: AV 411, KC-404
FW: C_{14}H_{18}N_{2}O
MF: C_{14}H_{18}N_{2}O
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 227, 263, 321 nm

Laboratory Procedures
For long term storage, we suggest that ibudilast be stored as supplied at -20°C. It should be stable for at least two years.

Ibudilast is supplied as a crystalline solid. A stock solution may be made by dissolving the ibudilast in the solvent of choice. Ibudilast is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of ibudilast in these solvents is approximately 25, 16, and 20 mg/ml, respectively.

Ibudilast is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ibudilast should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Ibudilast has a solubility of approximately 0.08 mg/ml in a 1:11 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Inhibitors of phosphodiesterase 4 (PDE4), which catalyzes the hydrolysis of cAMP, have potential applications in a variety of diseases, including asthma.1 Ibudilast is an inhibitor of PDE4 (IC_{50} = 54-239 nM) that, at higher doses, also inhibits PDE3 and PDE5 (IC_{50} = 1,600-3,510 nM).2,3 Through this action, it suppresses the elaboration of mediators involved in asthma and inflammation.2,4,5

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/14832

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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
Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals herewith. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed of their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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