

Product Name: C 101248

Catalog No.: 8007

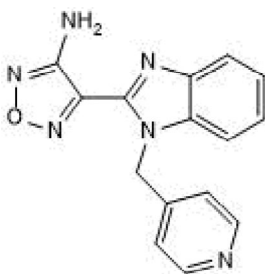
Batch No.: 1

CAS Number: 361368-24-3

IUPAC Name: 4-[1-(4-Pyridinylmethyl)-1*H*-benzimidazol-2-yl]-1,2,5-oxadiazol-3-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₂N₆O.
Batch Molecular Weight: 292.3
Physical Appearance: Beige solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.64	4.14	28.75
Found	61.52	4.1	28.6

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

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IUPAC Name: 4-[1-(4-Pyridinylmethyl)-1H-benzimidazol-2-yl]-1,2,5-oxadiazol-3-amine

Description:

C 101248 is a selective and potent inhibitor of both mouse and human tandem pore domain halothane-inhibited K⁺ channel 1 (THIK-1, IC₅₀ = 50 nM); it exhibits no activity against K2P family members, TREK-1 and TWIK-2, and K_v2.1. C 101248 blocks both tonic and ATP-evoked THIK-1 K⁺ currents in whole-cell patch-clamp recordings of mouse hippocampal microglia. C 101248 reduces neuroinflammation by preventing NLRP3-dependent release of IL-1β in isolated microglia.

Physical and Chemical Properties:

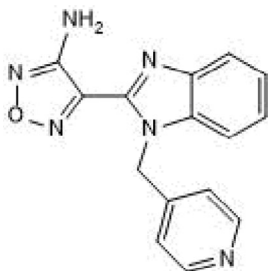
Batch Molecular Formula: C₁₅H₁₂N₆O.

Batch Molecular Weight: 292.3

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO 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.

References:

Ossola et al (2022) Characterisation of C101248: a novel selective THIK-1 channel inhibitor for the modulation of microglial NLRP3-inflammasome. *Neuropharmacology* **224** 109330. PMID: 36375694.

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