

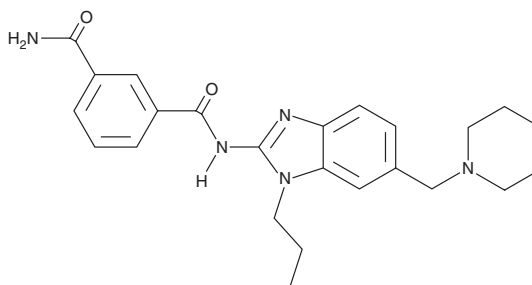
PRODUCT INFORMATION



HS-276

Item No. 43026

CAS Registry No.: 2767422-72-8
Formal Name: N¹-[6-(1-piperidinylmethyl)-1-propyl-1H-benzimidazol-2-yl]-1,3-benzenedicarboxamide
MF: C₂₄H₂₉N₅O₂
FW: 419.5
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

HS-276 is supplied as a solid. A stock solution may be made by dissolving the HS-276 in the solvent of choice, which should be purged with an inert gas. HS-276 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

HS-276 is a TGF- β -activated kinase 1 (TAK1) inhibitor (IC_{50} = 8.25 nM).¹ It is selective for TAK1 over a panel of 137 other kinases at 10 μ M but does inhibit CDC-like kinase 2 (Clk2), hexokinase (HK), and unc-51-like autophagy activating kinase 2 (ULK2; IC_{50} s = 29, 33, and 63 nM, respectively). HS-276 inhibits LPS-induced increases in secretion of TNF, IL-6, and IL-1 β from THP-1 macrophages differentiated by phorbol 12-myristate 13-acetate (PMA; IC_{50} s = 138, 201, and 234 nM, respectively). It inhibits collagen-induced increases in pannus formation, cartilage damage, bone resorption, and periosteal bone formation in a mouse model of rheumatoid arthritis when administered at a dose of 50 mg/kg twice per day.

Reference

1. Scarneo, S., Hughes, P., Freeze, R., *et al.* Development and efficacy of an orally bioavailable selective TAK1 inhibitor for the treatment of inflammatory arthritis. *ACS Chem. Biol.* **17**(3), 536-544 (2022).

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

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