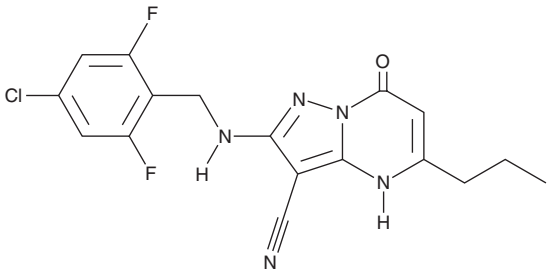
PRODUCT INFORMATION

BCAT-IN-2

Item No. 45501

CAS Registry No.:	1800024-45-6
Formal Name:	2-[[(4-chloro-2,6-difluor ophenyl) methyl]amino]-4,7-dihydro-7-oxo-5-propyl-pyrazolo[1,5-a] pyrimidine-3-carbonitrile
Synonym:	BCAT2-IN-2
MF:	$C_{17}H_{14}ClF_2N_5O$
FW:	377.8
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

BCAT-IN-2 is supplied as a solid. A stock solution may be made by dissolving the BCAT-IN-2 in the solvent of choice, which should be purged with an inert gas. BCAT-IN-2 is sparingly soluble (1-10 mg/ml) in acetonitrile.

Description

BCAT-IN-2 is an inhibitor of mitochondrial branched-chain amino acid transaminase (BCAT2; IC_{50} = 50 nM in a cell-free assay).[1] It increases serum levels of leucine, isoleucine, and valine in mice when administered at doses of 10, 30, or 100 mg/kg five hours prior to an amino acid bolus. BCAT-IN-2 also reduces tumor size and metastasis in a DU145 prostate cancer mouse xenograft model.[2]

References

1. Bertrand, S. M., Ancellin, N., Beaufils, B., *et al.* The discovery of *in vivo* active mitochondrial branched-chain aminotransferase (BCATm) inhibitors by hybridizing fragment and HTS hits. *J. Med. Chem.* **58(18),** 7140-7163 (2015).
2. Mei, W., Wei, M., Tang, C., *et al.* BCAT2 binding to PCBP1 regulates the PI3K/AKT signaling pathway to inhibit autophagy-related apoptosis and ferroptosis in prostate cancer. *Cell Death Dis.* **16(1)**, 337 (2025).

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