

PRODUCT INFORMATION

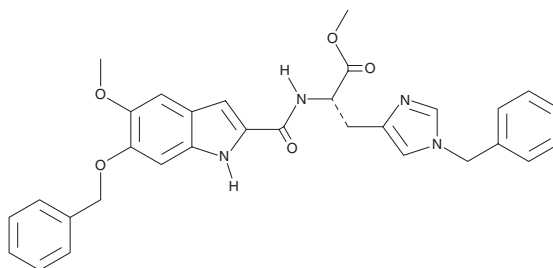


BMS 466442

Item No. 42075

CAS Registry No.: 1598424-76-0
Formal Name: N-[[5-methoxy-6-(phenylmethoxy)-1H-indol-2-yl]carbonyl]-1-(phenylmethyl)-L-histidine, methyl ester

MF: C₃₁H₃₀N₄O₅
FW: 538.6
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

BMS 466442 is supplied as a solid. A stock solution may be made by dissolving the BMS 466442 in the solvent of choice, which should be purged with an inert gas. BMS 466442 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

Description

BMS 466442 is an inhibitor of Asc-type amino acid transporter 1 (Asc-1).¹ It selectively inhibits Asc-1 in HEK293 cells expressing Asc-1 (IC₅₀ = 36.8 nM) over 40 other transporters (IC₅₀s = >10 μM). BMS 466442 (100 nM) inhibits serine, cysteine, glycine, and alanine import and cAMP-induced increases in the oxygen consumption rate (OCR) and decreases mitochondrial uncoupling protein 1 (UCP1) levels in primary human white and brown adipose cells.² It decreases the number of malformed neurons and reduces contextual fear memory deficits in a mouse model of surgery-induced brain damage when intracerebroventricularly infused.³

References

1. Brown, J.M., Hunihan, L., Prack, M.M., *et al.* *In vitro* characterization of a small molecule inhibitor of the alanine serine cysteine transporter -1 (SLC7A10). *J. Neurochem.* **129**(2), 275-283 (2014).
2. Arianti, R., Vinnai, B.Á., Tóth, B.B., *et al.* ASC-1 transporter-dependent amino acid uptake is required for the efficient thermogenic response of human adipocytes to adrenergic stimulation. *FEBS Lett.* **595**(16), 2085-2098 (2021).
3. Tapanes, S.A., Arizanovska, D., Díaz, M.M., *et al.* Inhibition of glial D-serine release rescues synaptic damage after brain injury. *Glia* **70**(6), 1133-1152 (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.

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