

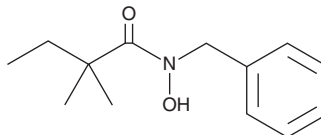
PRODUCT INFORMATION



RIPA-56

Item No. 33431

CAS Registry No.: 1956370-21-0
Formal Name: N-hydroxy-2,2-dimethyl-N-(phenylmethyl)-butanamide
MF: C₁₃H₁₉NO₂
FW: 221.3
Purity: ≥98%
Supplied as: A crystalline 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

RIPA-56 is supplied as a crystalline solid. A stock solution may be made by dissolving the RIPA-56 in the solvent of choice, which should be purged with an inert gas. RIPA-56 is soluble in organic solvents such as ethanol and DMSO.

Description

RIPA-56 is an inhibitor of receptor interacting serine/threonine kinase 1 (RIPK1; IC₅₀ = 13 nM).¹ It is selective for RIPK1 over RIPK3 at 10 μM, as well as over a panel of additional kinases at 2 μM. RIPA-56 inhibits Z-VAD-FMK-induced necrosis in HT-29 cells (EC₅₀ = 28 nM). *In vivo*, RIPA-56 (6 mg/kg) reduces TNF-α-induced lethality and protects against TNF-α-induced organ damage in a mouse model of systemic inflammatory response syndrome (SIRS). It reduces spinal cord demyelination and breakdown of the blood-brain barrier (BBB) in a mouse model of experimental autoimmune encephalomyelitis (EAE).² RIPA-56 (300 mg/kg) reduces hepatic inflammatory cell infiltration and fibrosis, as well as body weight gain and total fat mass, in a mouse model of high-fat diet-induced non-alcoholic steatohepatitis (NASH).³

References

1. Ren, Y., Su, Y., Sun, L., *et al.* Discovery of a highly potent, selective, and metabolically stable inhibitor of receptor-interacting protein 1 (RIP1) for the treatment of systemic inflammatory response syndrome. *J. Med. Chem.* **60**(3), 972-986 (2017).
2. Zhang, S., Su, Y., Ying, Z., *et al.* RIP1 kinase inhibitor halts the progression of an immune-induced demyelination disease at the stage of monocyte elevation. *Proc. Natl. Acad. Sci. USA* **116**(12), 5675-5680 (2019).
3. Majdi, A., Aoudjehane, L., Ratziu, V., *et al.* Inhibition of receptor-interacting protein kinase 1 improves experimental non-alcoholic fatty liver disease. *J. Hepatol.* **72**(4), 627-635 (2020).

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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