

Certificate of Analysis

Print Date: May 16th 2022

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Product Name: RIPA 56 Catalog No.: 7339 Batch No.: 1

CAS Number: 1956370-21-0

IUPAC Name: N-Hydroxy-2,2-dimethyl-N-(phenylmethyl)butanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₉NO₂.

Batch Molecular Weight: 221.3

Physical Appearance: White solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

N OH OH

2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 70.56 8.65 6.33 Found 70.35 8.72 6.34



Product Information

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IUPAC Name: N-Hydroxy-2,2-dimethyl-N-(phenylmethyl)butanamide

Description:

RIPA 56 is a potent and metabolically stable receptor-interacting protein kinase 1 (RIPK1) inhibitor (EC $_{50}$ = 13 nM). RIPA-56 shows no inhibition of RIP3 kinase at 10 μM . RIPA 56 blocks necroptosis and aging of the mouse male reproductive system. RIPA 56 reduces tumor necrosis factor α (TNF α)-induced mortality and multi-organ damage in a mouse model of systemic inflammatory response syndrome (SIRS). RIPA 56 is orally bioavailable.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃H₁₉NO₂. Batch Molecular Weight: 221.3 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

N OH OH

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM ethanol 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. Our standard recommendations are:

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:

Zhuang *et al* (2019) Small-molecule inhibitors of necroptosis: current status and perspectives. J.Med.Chem. *63* 1490. PMID: 31622096. Li *et al* (2017) RIPK1-RIPK3-MLKL-dependent necrosis promotes the aging of mouse male reproductive system. Elife *6* e27692. PMID: 28807105.

Ren et al (2017) 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. 60 972. PMID: 27992216.

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