

Product Name: RAGE 229

Catalog No.: 7701

Batch No.: 1

CAS Number: 2143072-85-7

IUPAC Name: *N*-[4-[7-Cyano-4-(4-morpholinylmethyl)-2-quinolinyl]phenyl]acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₂N₄O₂·¼H₂O

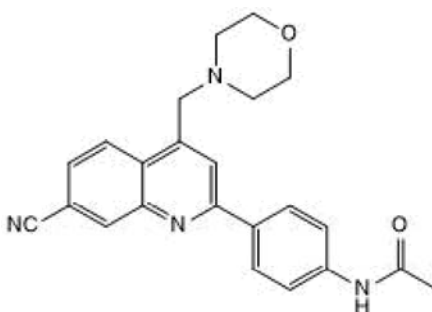
Batch Molecular Weight: 390.95

Physical Appearance: Pale yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.66	5.8	14.33
Found	70.74	5.66	14.29

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

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Description:

RAGE 229 is an antagonist of the interaction between the cytoplasmic tail of the receptor for advanced glycation end products (ctRAGE) and the formin, Diaphanous-1 (DIAPH1) (K_D for binding to ctRAGE = 2 nM). RAGE 229 inhibits the migration of human aortic smooth muscle cells in an in vitro wound healing assay (IC_{50} = 120 nM). RAGE 229 reduces short- and long-term complications of diabetes in mouse models, without lowering blood glucose concentrations. RAGE 229 also reduces plasma concentrations of TNF- α , IL-6, and CCL2/JE-MCP1 and attenuates inflammatory signaling in diabetic mice.

Physical and Chemical Properties:

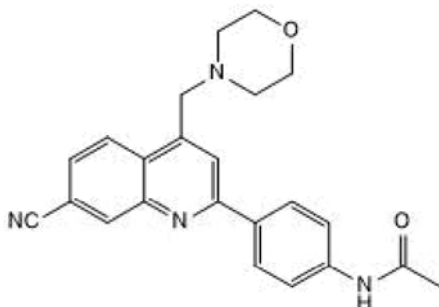
Batch Molecular Formula: $C_{23}H_{22}N_4O_2 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 390.95

Physical Appearance: Pale yellow solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO 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.

Licensing Information:

Sold under license from New York University

References:

Manigrasso et al (2021) Small-molecule antagonism of the interaction of the RAGE cytoplasmic domain with DIAPH1 reduces diabetic complications in mice. *Sci.Transl.Med.* **13** (621) eabf7084. PMID: 34818060.

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