

**Product Name:** MK 1903

**Catalog No.:** 4622

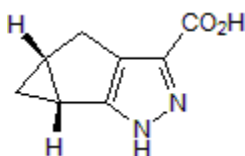
**Batch No.:** 1

**CAS Number:** 1268882-43-4

**IUPAC Name:** (4a*R*,5a*R*)-4,4a,5,5a-Tetrahydro-1*H*-cyclopropa[4,5]cyclopenta[1,2]pyrazole-3-carboxylic acid

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>8</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 164.16  
**Physical Appearance:** Off-white solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 50 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.2 (Dichloromethane:Methanol [4:1])  
**HPLC:** Shows 99.6% purity  
**Chiral HPLC:** Shows 99.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +40.9 (Concentration = 1, Solvent = Methanol)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	58.53	4.91	17.06
Found	58.54	4.95	16.9

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

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**Description:**

Potent and selective hydroxycarboxylic acid receptor 2 (HCA<sub>2</sub>, GPR109A) full agonist; exhibits greater potency than Niacin in a whole cell HTRF-cAMP assay (EC<sub>50</sub> values are 12.9 and 51 nM respectively). Exhibits no binding at the GRP109B receptor. Shown to lower plasma free fatty acid levels in humans.

**Physical and Chemical Properties:**

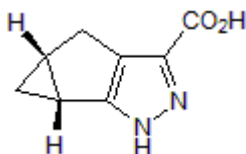
Batch Molecular Formula: C<sub>8</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>

Batch Molecular Weight: 164.16

Physical Appearance: Off-white solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Boatman** (2012) (1*aR*,5*aR*)1*a*,3,5,5*a*-Tetrahydro-1*H*-2,3-diaza-cyclopropa[ $\alpha$ ]pentalene-4-carboxylic acid (MK-1903): a potent GPR109a agonist that lowers free fatty acids in humans. *J.Med.Chem.* **55** 3644. PMID: 22435740.

**Lauring** (2012) Niacin lipid efficacy is independent of both the niacin receptor GPR109A and free fatty acid suppression. *Sci.Transl.Med.* **4** (148) 148ra115. PMID: 22914621.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 50 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.

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