Product Datasheet

Technical Data

Formula	$C_{19}H_{18}N_2O_4S$		
Molecular Weight	370.42	**CAS No.**	146062-49-9
Solubility (25°C)*	In vitro	0.5MNAOH	3.03 mg/mL (8.17 mM)
		DMSO	0.01 mg/mL (0.02 mM)
		Water	Insoluble

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.6996 mL	13.4982 mL	26.9964 mL
5 mM	0.5399 mL	2.6996 mL	5.3993 mL
10 mM	-	-	-
50 mM	-	-	-

Biological Activity

Description	MSDC-0160 (CAY10415) is a prototype **mTOT**-modulating insulin sensitizer being studied to treat diabetes and Alzheimer's disease. Phase 2.
Targets	mTOT [1]
In vitro	MSDC-0160 reduces resistance in the insulin/IGF-1 signaling pathway and restores IGF-1-induced Akt and GSK-3 phosphorylation. This compound in combination with IGF-1 and 8 mM glucose increases β-cell specific gene expression of insulin, pdx1, nkx6.1, and nkx2.2, and maintains insulin content without altering glucose-stimulated insulin secretion. Furthermore, it promotes human β-cell differentiation and reduces the expression of markers of apoptosis. [1]
In vivo	MSDC-0160 (100 mg/kg p.o.) improves insulin sensitivity by resulting in the large decrease in the product of circulating insulin and glucose in diabetic KKAy mice. [2]

Protocol (from reference)

Animal Study: [2]

- **Animal Models**
  Diabetic KKAy mice
- **Dosages**
  ~100 mg/kg
- **Administration**
  p.o.

References

https://pubmed.ncbi.nlm.nih.gov/23650507/ https://pubmed.ncbi.nlm.nih.gov/19936080/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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