Imeglimin (EMD 387008) Hydrochloride

Catalog No.C14549 Batch:C1454903

Product Datasheet

Technical Data

Formula	$C_6H_{13}N_5.ClH$					
Molecular Weight	191.66	**CAS No.**	775351-61-6			
Solubility (25°C)*	In vitro	Ethanol	38 mg/mL (198.26 mM)			
		Water	19 mg/mL (99.13 mM)			
		DMSO	10 mg/mL (52.17 mM)			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <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

Biological Activity

Description	Imeglimin (EMD 387008, IMEG, PXL 008, RVT-1501) Hydrochloride is a new class of oral **glucose-lowering** agents. Imeglimin normalizes glucose tolerance and insulin sensitivity by preserving mitochondrial function from oxidative stress and favoring lipid oxidation in liver of HFHSD mice.
In vitro	Preincubation with Imeglimin (10 mM for 4 h or 100 μM for 24 h) fully prevents tert-butylhydroperoxide (tBH)-induced cell death.^{[2]}
In vivo	Imeglimin normalizes glucose tolerance and insulin sensitivity by preserving mitochondrial function from oxidative stress and favoring lipid oxidation in liver of high-fat, high-sucrose diet (HFHSD) mice.^{[1]}

Protocol (from reference)

Cell Assay:
^{[2]}

- **Cell lines**
  Human endothelial cells (HMEC-1)
- **Concentrations**
  100 μM, 10 mM
- **Incubation Time**
  24 h, 4 h
- **Method**
  HMEC-1 preincubated with or without Imeglimin (10 mM for 4 h or 100 μM for 24 h) or with CsA (1 μM for 30 min) are ished with PBS before subsequent exposure to 0.5 mM tBH in FBS-free culture medium for 45 min. Cells are then ished with PBS and incubated at 37 °C for 24 h in a complete MCDB medium. Alternatively, cells are exposed to 5.5 mM glucose (control cells) or to 33 mM glucose for 48 h. Cytotoxicity is evaluated with a double-stain system using the Annexin V-Fluoprobes 488 kit combined with propidium iodide.

Animal Study:
^{[1]}

- **Animal Models**
  16-week high-fat, high-sucrose diet (HFHSD) mice
- **Dosages**
  200 mg/kg
- **Administration**
  o.g.

References

https://pubmed.ncbi.nlm.nih.gov/25552598/

https://pubmed.ncbi.nlm.nih.gov/27551496/

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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