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## Produktinformation



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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Metformin Hydrochloride

Autophagy inducer  
Catalog No. SIH-395



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

Metformin Hydrochloride

### Description

Autophagy inducer

### Purity

>97%

### CAS No.

1115-70-4

### Molecular Formula

CH<sub>11</sub>N<sub>5</sub>HCl

### Molecular Weight

165.6

## Properties

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### Storage Temperature

-20°C

### Shipping Temperature

Shipped Ambient

### Product Type

Inducer

### Solubility

Soluble to 100 mM in water and to 50 mM in DMSO.

### Source

Synthetic

### Appearance

White crystalline powder.

### SMILES

[H+].CN(C)C(N=C(N)N)=N.[Cl-]

### InChI

InChI=1S/C4H11N5.ClH/c1-9(2)4(7)8-3(5)6;/h1-2H3,(H5,5,6,7,8);1H

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**InChIKey**

OETHQSJEHLVLGH-UHFFFAOYSA-N

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**Safety Phrases**

Classification: D2B- Toxic Material Causing Other Toxic Effects, Moderate skin irritant, Moderate eye irritant

Safety Phrases:

S22 - Do not breathe dust.

S24/25 - Avoid contact with skin and eyes.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Hazard statements:

H302- Harmful if swallowed.

H315- Causes skin irritation.

H319- Causes serious eye irritation.

Precautionary statements:

P305 + P351 + P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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**Cite This Product**

Metformin Hydrochloride (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SIH-395)

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**Biological Description**

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**Alternative Names**

N,N-Dimethylimidodicarbonimidic diamide hydrochloride

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**Research Areas**

Cancer, Autophagy

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**PubChem ID**

14219

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**Scientific Background**

Metformin Hydrochloride is an antidiabetic agent which reduces blood-glucose levels as well as improves insulin sensitivity. Metformin has also been shown to inhibit hepatic gluconeogenesis via activation of LKB1-AMPK (AMP-activated protein kinase) pathway. The activation of this pathway has also been seen to have an antiproliferative and pro-apoptotic effect in cancer cells. Lastly, Metformin is believed to induce autophagy through inhibition of the mTORC1 pathway.

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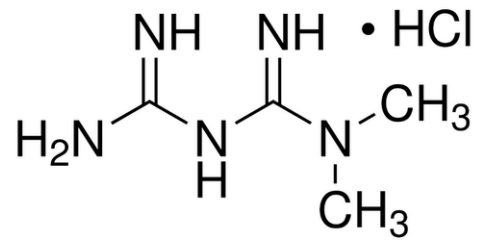
**References**

1. Kirpichnikov D., et al. (2002). *Ann Intern Med.* 137(1): 25-33.
  2. Caton P. W., et al. (2010). *J Endocrino.* 205(1): 97-106.
  3. Feng Y. H., et al. (2011). *J Cell Mol Med.* 15(4): 825-36.
  4. Huang H., et al. (2013). *Autophagy.* 9(2): 175-95.
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**Product Images**

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Chemical structure of Metformin Hydrochloride (SIH-395), a Autophagy inducer. CAS #: 1115-70-4. Molecular Formula: C<sub>4</sub>H<sub>11</sub>N<sub>5</sub> · HCl. Molecular Weight: 165.6 g/mol.



## Product Citations (0)

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Currently there are no citations for this product.

## Reviews

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There are no reviews yet.