

Product datasheet

Metformin hydrochloride, AMPK activator ab120847

[10 References](#) [2 Images](#)

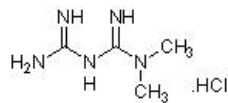
Overview

Product name	Metformin hydrochloride, AMPK activator
Description	AMPK activator
Biological description	AMPK activator. Antidiabetic and anticancer activity <i>in vivo</i> . Rapidly crosses the blood-brain barrier. Also available in simple stock solutions (ab146725) - add 1 ml of water to get an exact, ready-to-use concentration.

Purity > 99%

CAS Number 1115-70-4

Chemical structure



Properties

Chemical name	<i>N,N</i> -Dimethylimidodicarbonimidic diamide hydrochloride
Molecular weight	165.63
Molecular formula	C ₄ H ₁₁ N ₅ .HCl
PubChem identifier	14219
Storage instructions	Store at Room Temperature. The product can be stored for up to 12 months.
Solubility overview	Soluble in water to 100 mM and in DMSO to 50 mM.

Sonication and heating in a water bath to approximately 45 °C are required to produce a clear solution in DMSO.

Handling

Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

Refer to SDS for further information.

Need more advice on solubility, usage and handling? Please visit our [frequently asked](#)

[questions \(FAQ\) page](#) for more details.

SMILES

CN(C)C(=N)N=C(N)N.Cl

Source

Synthetic

Applications

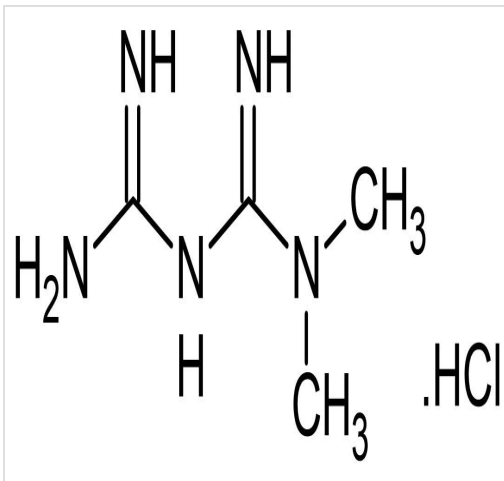
The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab120847 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

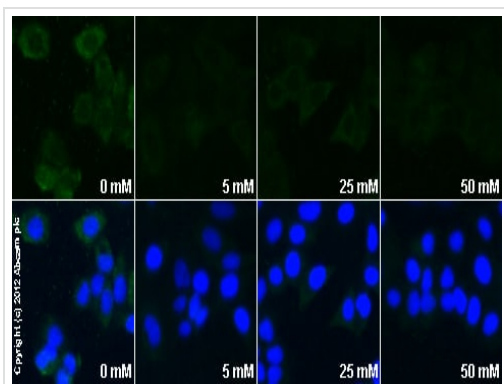
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - Metformin hydrochloride, AMPK activator (ab120847)

2D chemical structure image of ab120847, Metformin hydrochloride, AMPK activator



Immunocytochemistry/ Immunofluorescence - Metformin hydrochloride, AMPK activator (ab120847)

ab1 staining HIF1 α in MCF7 cells treated with metformin hydrochloride (ab120847), by ICC/IF. Decrease in HIF1 α expression correlates with increased concentration of metformin hydrochloride, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120847 (metformin hydrochloride) in water, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with **ab1** (10 μ g/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-mouse polyclonal antibody (**ab96879**) at 1/250 dilution was used as the secondary antibody. Nuclei were

counterstained with DAPI and are shown in blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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