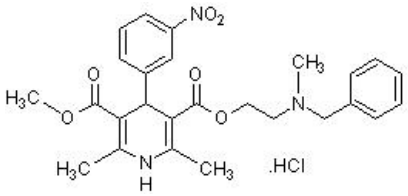
abcam

Product datasheet

Nicardipine hydrochloride, L-type Ca2+ channel antagonist ab120531

2 Images

Overview

Product name	Nicardipine hydrochloride, L-type Ca2+ channel antagonist
Description	L-type Ca^{2+} channel antagonist
Biological description	Selective, L-type Ca^{2+} channel blocker (IC_{50} = 24.1 µM). Dihydropyridine derivative. Potent coronary and cerebral vasodilator.
Purity	> 97%
CAS Number	54527-84-3
Chemical structure	

Properties

Chemical name	1,4-Dihydro-2,6-dimethyl-4-(3-nitrophenyl)methyl-2-[methyl(phenylmethyl)amino]-3,5-pyridinedicarboxylic acid ethyl ester hydrochloride
Molecular weight	515.99
Molecular formula	$C_{26}H_{29}N_3O_6$.HCl
Storage instructions	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in DMSO to 100 mM
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. Toxic, 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.

Source Synthetic

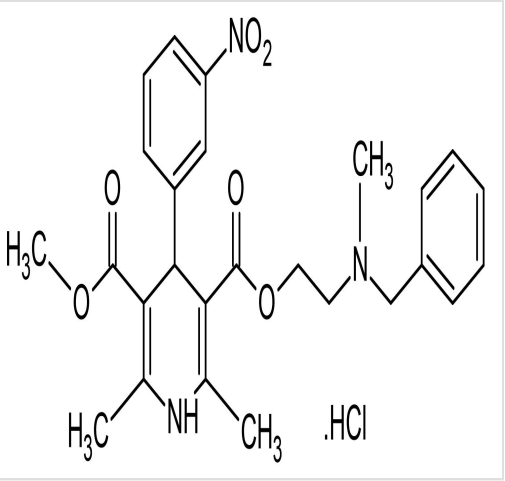
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab120531 in the following tested applications.

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

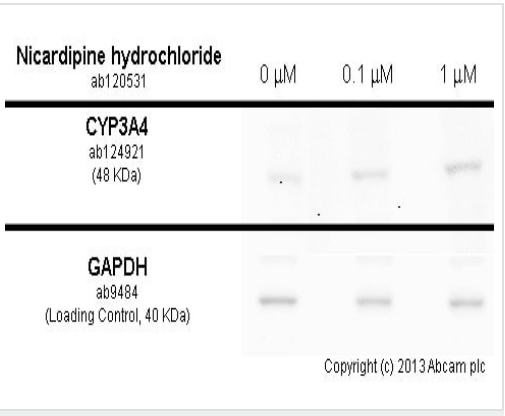
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - Nicardipine hydrochloride, L-type Ca^{2+} channel antagonist (ab120531)

2D chemical structure image of ab120531, Nicardipine hydrochloride, L-type Ca2+ channel antagonist



Western blot - Nicardipine hydrochloride, L-type Ca2+ channel antagonist (ab120531)

HepG2 cells were incubated at 37°C for 48h with vehicle control (0 µM) and different concentrations of nicardipine hydrochloride (ab120531) in DMSO. Increased expression of cytochrome P450 3A4 (**ab124921**) correlates with an increase in nicardipine hydrochloride concentration, as described in literature.

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 10 µg of each were loaded on the gel and the WB was run under reducing conditions. After transfer the membrane was blocked for an hour using 5% BSA before being incubated with **ab124921** at 1/10000 dilution and **ab9484** at 1 µg/ml overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP (**ab97051**) at 1/10000 dilution and visualised using ECL development solution.

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

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