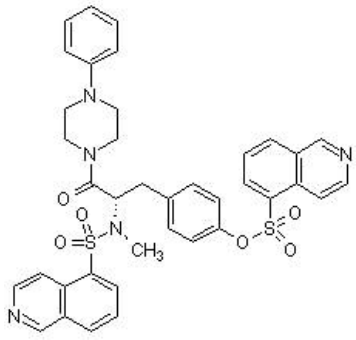
abcam

Product datasheet

KN-62, CaM kinase II inhibitor. P2X7 antagonist. ab120421

4 References 2 Images

Overview

Product name	KN-62, CaM kinase II inhibitor. P2X7 antagonist.
Description	CaM kinase II inhibitor. $P2X_7$ antagonist.
Biological description	Cell-permeable, reversible and selective inhibitor of CaM kinase II (IC_{50} = 500 nM). Interacts with the calmodulin binding site of the enzyme. At higher concentrations reported to inhibit GSK3β, PRAK and MAPKAP-K2. Also potent non-competitive antagonist at the $P2X_7$ receptor (IC_{50} = 15 nM).
Purity	> 97%
CAS Number	127191-97-3
Chemical structure	

Properties

Chemical name	4-[(2*S*)-2-[(5-Isoquinolinylsulfonyl)methylamino]-3-oxo-3-(4-phenyl-1-piperazinyl)propyl] phenylisoquinolinesulfonic acid ester
Molecular weight	721.84
Molecular formula	$C_{38}H_{35}N_5O_6S_2$
PubChem identifier	5312126
Storage instructions	Store at -20°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.

Need more advice on solubility, usage and handling? Please visit our **frequently asked questions (FAQ) page** for more details.

SMILES O=C([C@H](Cc3ccc(OS(=O)(=O)c2cccc1cnccc12)cc3)N(C)S(=O)(=O)c5cccc4cnccc45)N6CCN(CC6)c7ccccc7

Source Synthetic

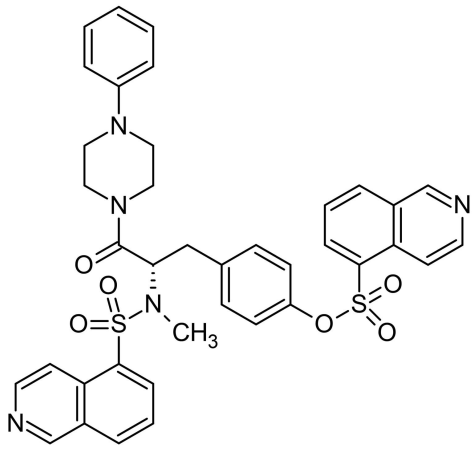
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab120421 in the following tested applications.

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

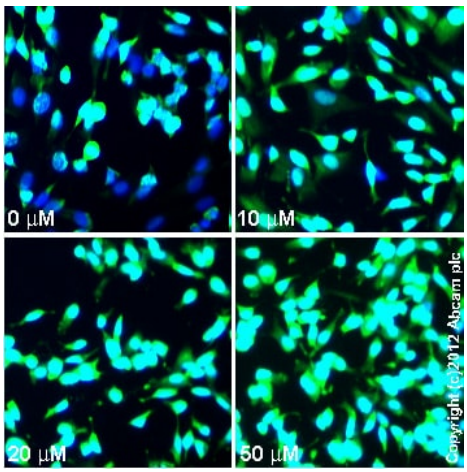
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - KN-62, CaM kinase II inhibitor. $P2X_7$ antagonist. (ab120421)

2D chemical structure image of ab120421, KN-62, CaM kinase II inhibitor. P2X7 antagonist.



Immunocytochemistry/ Immunofluorescence - KN-62, CaM kinase II inhibitor. P2X7 antagonist. (ab120421)

ab18197 staining PCNA in SK-N-SH cells treated with KN-62 (ab120421), by ICC/IF. Increase in PCNA nuclear expression correlates with increased concentration of KN-62, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120421 (KN-62) in DMSO, fixed with 100% methanol for 5 minutes at -20°C 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 **ab18197** (1 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

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