Product datasheet

(±)-Blebbistatin, inhibitor of myosin II ab120425

30 References 2 Images

Overview

Product name (±)-Blebbistatin, inhibitor of myosin II
Description Potent, selective, inhibitor of myosin II
Biological description Cell-permeable, reversible inhibitor of non-muscle myosin II. Shows high affinity and selectivity for vertebrate and invertebrate Myosin II (IC\textsubscript{50} values 0.5-5 μM). Inhibits actin-activated MgATPase activity and \textit{in vitro} motility of class II myosins. Also inhibits contraction of the cytokinetic ring. Blocks cell blebbing and disrupts directed cell migration and cytokinesis.

CAS Number 674289-55-5
Chemical structure

![Chemical structure of (±)-Blebbistatin](image)

Properties

Chemical name (±)-1,2,3,3a-Tetrahydro-3a-hydroxy-6-methyl-1-phenyl-4\textsubscript{H}-pyrrolo[2,3-b]quinolin-4-one
Molecular weight 292.34
Molecular formula C\textsubscript{18}H\textsubscript{16}N\textsubscript{2}O\textsubscript{2}
PubChem identifier 3476986
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.

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

SMILES Cc2ccc3N=C1N(CCC1(O)C(=O)c3c2)c4ccccc4
The Abpromise guarantee

Our Abpromise guarantee covers the use of ab120425 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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Images

2D chemical structure image of ab120425, Blebbistatin, inhibitor of myosin II

ab32084 staining paxillin in MEF1 cells treated with (+/-)-blebbistatin (ab120425), by ICC/IF. Decreased membrane expression of paxillin correlates with increased concentration of (+/-)-blebbistatin, as described in literature.

The cells were incubated at 37°C for 1h in media containing different concentrations of ab120425 ((+/−)-blebbistatin) in DMSO, 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 ab32084 (1/100 dilution) 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.
Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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