

Product datasheet

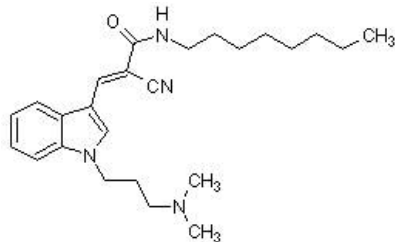
Dynole® 34-2, dynamin I and dynamin II inhibitor ab120463

[11 References](#) [3 Images](#)

Overview

Product name	Dynole® 34-2, dynamin I and dynamin II inhibitor
Description	Potent dynamin I and dynamin II inhibitor
Biological description	Potent, cell-permeable dynamin I and dynamin II inhibitor (IC ₅₀ values are 1.3 and 14.2 μM for inhibition of dynamin I and II GTPase, respectively). Targets the GTPase domain at an allosteric site. Potently inhibits receptor-mediated and synaptic vesicle endocytosis (IC ₅₀ values are 5 and 41.1 μM, respectively). 15-fold more active than Dynasore (ab120192) against dynamin I.
General notes	Sold under exclusive licence from Children's Medical Research Institute and Newcastle Innovation Ltd. Dynole® is a trademark of Children's Medical Research Institute and Newcastle Innovation Ltd.
CAS Number	1128165-88-7

Chemical structure



Properties

Chemical name	2-Cyano-N-octyl-3-[1-(3-dimethylaminopropyl)-1H-indol-3-yl]acrylamide
Molecular weight	408.59
Molecular formula	C ₂₅ H ₃₆ N ₄ O
PubChem identifier	44157463
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

CCCCCCCNC(=O)C(C#N)=Cc2cn(CCCN(C)C)c1ccccc12

Source

Synthetic

Applications

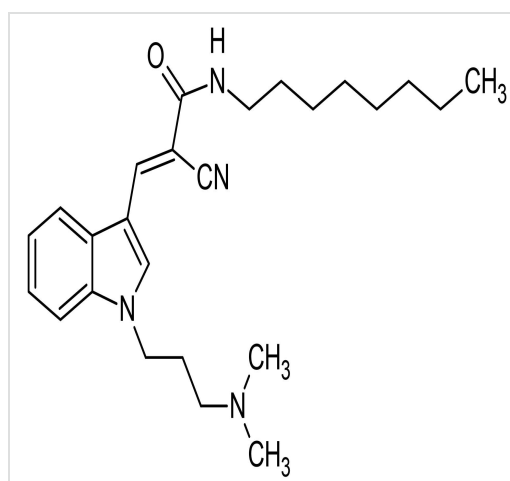
The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab120463 in the following tested applications.

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

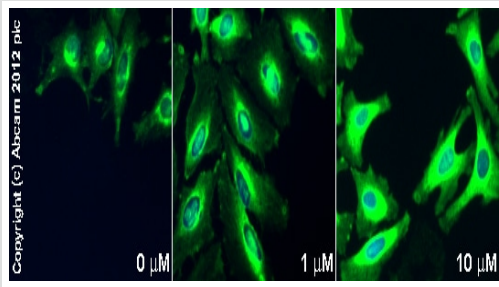
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



2D chemical structure image of ab120463, Dynole® 34-2, dynamin I and dynamin II inhibitor

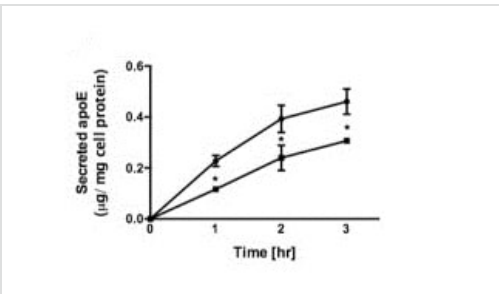
Chemical Structure - Dynole® 34-2, dynamin I and dynamin II inhibitor (ab120463)



Immunocytochemistry/ Immunofluorescence -
Dynole® 34-2, dynamin I and dynamin II inhibitor
(ab120463)

ab66705 staining PA11 in HeLa cells treated with dynole-34-2™; (ab120463), by ICC/IF. Increase in PA11 expression correlates with increased concentration of dynole-34-2™, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120463 (dynole-34-2™) 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 **ab66705** (5 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.



Functional Studies - Dynole® 34-2, dynamin I and
dynamin II inhibitor (ab120463)

Image from Kockx et al., PLOS One., 9(10): e111186.
Fig 1F.; doi:
<https://doi.org/10.1371/journal.pone.0111186>.
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Primary human monocyte-derived macrophages (HMDM) were incubated with 30 μM of ab120463 for indicated time periods to determine if Dynamin inhibition decreases apoE secretion from primary human macrophages. Dynole-34-2 both dose- and time-dependently decreased apoE secretion without affecting HMDM viability (bottom line on the graph as appose to the control, top line).

Kockx et al., PLOS One., 9(10): e111186. Fig 1F.; doi:
<https://doi.org/10.1371/journal.pone.0111186>.

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

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