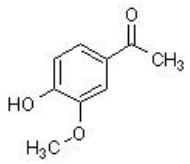
abcam

Product datasheet

Apocynin, NADPH-oxidase inhibitor ab120615

6 References 3 Images

Overview

Product name	Apocynin, NADPH-oxidase inhibitor
Description	Selective NADPH-oxidase inhibitor
Biological description	Selective NADPH-oxidase inhibitor (IC_{50} = 10 µM). Inhibits production of reactive oxygen species. Also elicits a range of *in vitro* and *in vivo* anti-inflammatory effects.
CAS Number	498-02-2
Chemical structure	

Properties

Chemical name	4'-Hydroxy-3'-methoxyacetophenone
Molecular weight	166.18
Molecular formula	$C_9H_{10}O_3$
PubChem identifier	2214
Storage instructions	Store at Room Temperature. The product can be stored for up to 12 months.
Solubility overview	Soluble in DMSO to 100 mM and in ethanol 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. 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	CC(=O)C1=CC(=C(C=C1)O)OC
Source	Synthetic

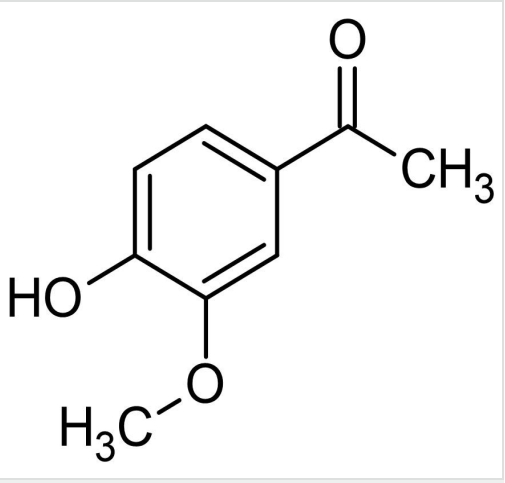
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab120615 in the following tested applications.

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

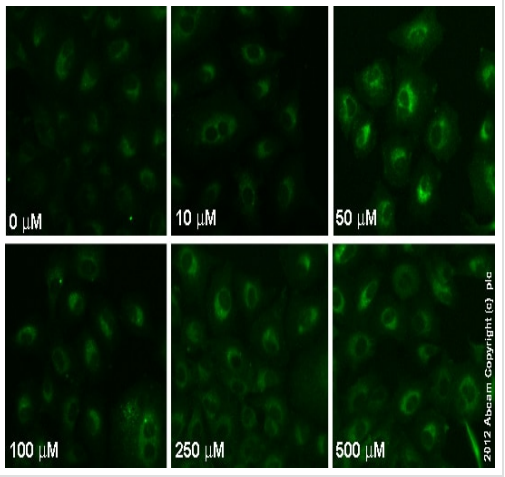
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



Chemical Structure - Apocynin, NADPH-oxidase inhibitor (ab120615)

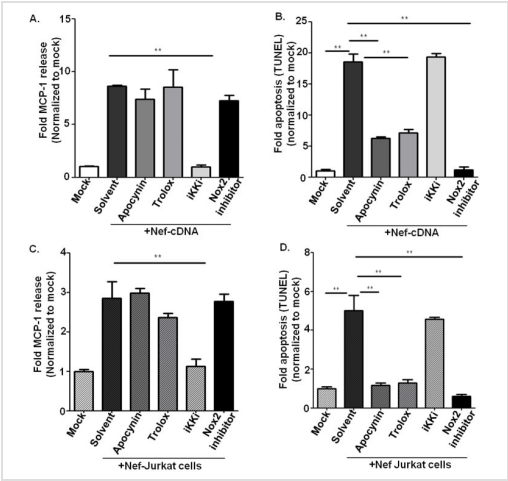
2D chemical structure image of ab120615, Apocynin, NADPH-oxidase inhibitor



Immunocytochemistry/ Immunofluorescence - Apocynin, NADPH-oxidase inhibitor (ab120615)

ab19534 staining glutathione in A549 cells treated with apocynin (ab120615), by ICC/IF. Increase in glutathione expression correlates with increased concentration of apocynin, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120615 (apocynin) 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 **ab19534** (10 µg/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.



Functional Studies - Apocynin, NADPH-oxidase inhibitor (ab120615)

A–B. Endothelial cells were transfected with Nef cDNA, incubated for further 6 hours and treated with apocynin (200 nM), trolox (200 nM), Nox2 inhibitor (1 uM) or IKKi (100 nM). After additional 18 hours supernatants were analyzed for Nef-induced MCP-1 production (A) and endothelial cells for apoptosis using TUNEL (B). C–D. Endothelial cells were cocultured with Nef-transfected Jurkat cells for 24 h, and then treated with apocynin (200 nM), trolox (200 nM), Nox2 inhibitor (1 uM) or IKKi (100 nM) and incubated an additional 18 h, then analyzed for Nef-induced MCP-1 production (C) and apoptosis of endothelial cells (D). Data were expressed as fold MCP-1 production and apoptosis, normalized to the mean of control measurements. Data represent mean±SD from 3 separate experiments in which measurements were made in triplicate. *P<0.05, and **P<0.01.

Wang T et al., PloS one., 9(3): e91063. Fig 6.; doi: 10.1371/journal.pone.0091063