

Pitstop® 2, Novel cell-permeable clathrin inhibitor ab120687

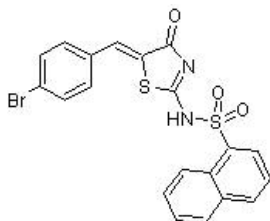
108 References **3 图像**

概述

产品名称	Pitstop® 2, Novel cell-permeable clathrin抑制剂
描述	Novel, selective cell-permeable clathrin抑制剂
生物学描述	Novel, selective, cell membrane permeable clathrin inhibitor. Competitively inhibits clathrin terminal domain to selectively inhibit clathrin mediated endocytosis (CME) ($IC_{50} = 12 \mu M$ for inhibition of amphiphysin association of clathrin TD). Interferes with receptor mediated endocytosis (RME), entry of HIV and synaptic vesicle recycling.
纯度	> 98%
常规说明	High concentrations of Pitstop 2™ may interfere with fluorescence imaging due to a low emittance of the compound in the green channel. This fluorescence is not usually detectable if the cells have been first fixed and washed prior to imaging. Sold under exclusive licence from Children's Medical Research Institute and Newcastle Innovation Ltd. Pitstop® is a trademark of Freie Universitat Berlin, Newcastle Innovation Ltd. and Children's Medical Research Institute.

CAS编号 1419320-73-2

化学结构



性能

化学名称	<i>N</i> -[5-(4-Bromobenzylidene)-4-oxo-4,5-dihydro-1,3-thiazol-2-yl]naphthalene-1-sulfonamide
分子量	473.36
分子式	$C_{20}H_{13}BrN_2O_3S_2$
PubChem识别号	137254289
存放说明	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
溶解度概述	Soluble in DMSO. Please refer to the Protocol Booklet for more information.

处理

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.

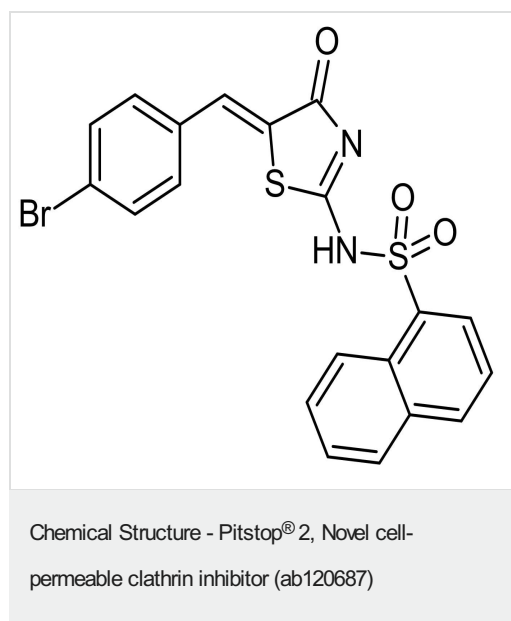
SMILES

C1=CC=C2C(=C1)C=CC=C2S(=O)(=O)N=C3NC(=O)/C(=C/C4=CC=C(C=C4)Br)/S3

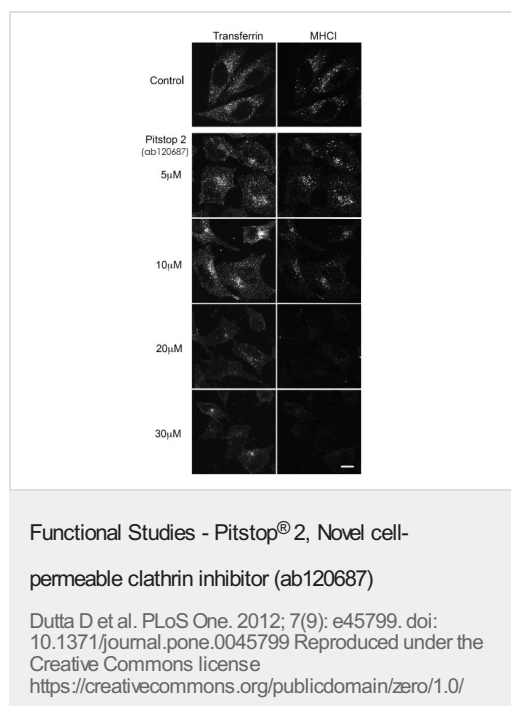
来源

Synthetic

图片

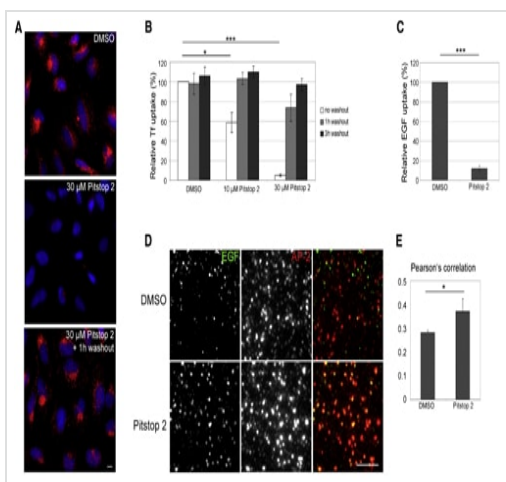


2D chemical structure image of ab120687, Pitstop® 2, Novel cell-permeable clathrin inhibitor



Hela cells were preincubated with DMSO (0.1%) or different doses of pitstop 2 (ab120687) ranging from 5 µM to 30 µM. Cells were then allowed to internalize Alexa594-Transferrin and antibodies to MHCI in the presence or absence of the drug for 30 min. After internalization, surface antibody was removed by low pH acid wash. Cells were then labeled with secondary antibodies to detect transferrin and MHCI.

Credit: Dutta D et al. PLoS One. 2012; 7(9): e45799. doi: 10.1371/journal.pone.0045799



Functional Studies - Pitstop® 2, Novel cell-permeable clathrin inhibitor (ab120687)

Von Kleist L. et al., Cell. 2011 Aug 5;146(3):471-84. Fig. 3(A-E), doi: 10.1016/j.cell.2011.06.025.

A) Pitstop® 2 reversibly inhibits Tf uptake. After 15 min preincubation HeLa cells were incubated with Alexa Fluor® 568-Tf in the presence of DMSO or 30 µM Pitstop 2 for 15 min. Tf uptake is seen to resume after washout of the drug for 1 hr. Scale bar, 10 mm. B) Reversibility and dose dependence of Pitstop® 2-mediated inhibition of Tf uptake. Data represent SEM (n = 3 independent experiments; *p < 0.05, ***p < 0.0001). C) Pitstop® 2 inhibits EGF uptake. HeLa cells pretreated with 30 µM pitstop 2 or DMSO for 15 min were incubated for 15 min with Alexa Fluor® 488-EGF in the continued presence of inhibitor. Data represent SEM (n = 3 independent experiments; ***p < 0.0001). D) Pitstop 2 does not interfere with AP-2-mediated cargo sequestration into CCPs. TIRF microscopy images of Cos7 cells pretreated with DMSO or 30 µM Pitstop 2 for 15 min were incubated with Alexa Fluor® 488-EGF at 80°C in the continued presence of inhibitor and immunostained for AP-2a (red). Scale bar, 4 mm. E) Pearson's

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

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