

# Pitstop® 2, Novel cell-permeable clathrin inhibitor ab120687

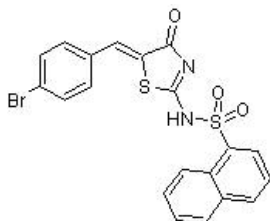
**108 References**   **画像数 3**

### 製品の概要

製品名	Pitstop® 2, Novel cell-permeable clathrin inhibitor
製品の詳細	Novel, selective cell-permeable clathrin inhibitor
生理活性の詳細	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.
精製度	> 98%
特記事項	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 番号 1419320-73-2

### 構造式



### 製品の特性

体系名	<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 登録番号	137254289
保存方法	Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.
溶解性	Soluble in DMSO. Please refer to the Protocol Booklet for more information.

## 使用に関する注意

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.

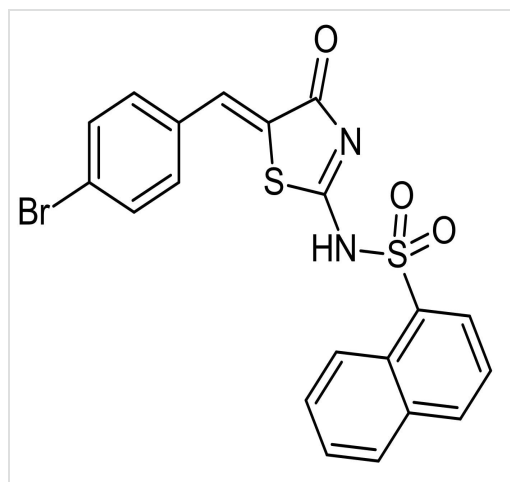
## SMILES 線形表記

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

## 由来

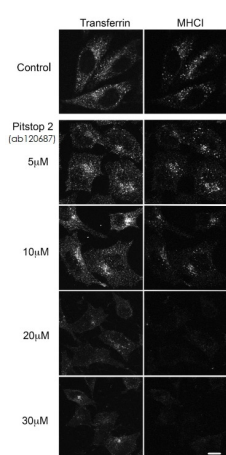
Synthetic

## 画像



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

Chemical Structure - Pitstop® 2, Novel cell-permeable clathrin inhibitor (ab120687)

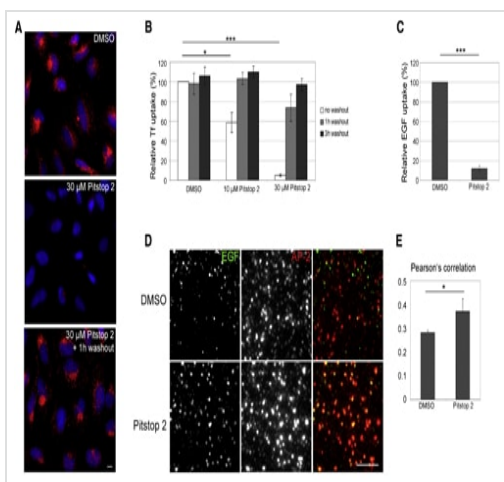


Hela cells were preincubated with DMSO (0.1%) or different doses of pitstop 2 (ab120687) ranging from 5 µM to 30 µM. Cells were then allowed to internalize Alexa594-Transferrin and antibodies to MHCI in the presence or absence of the drug for 30 min. After internalization, surface antibody was removed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

Dutta D et al. PLoS One. 2012; 7(9): e45799. doi: 10.1371/journal.pone.0045799 Reproduced under the Creative Commons license <https://creativecommons.org/publicdomain/zero/1.0/>



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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