Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Salubrinal

Catalog No: tcsc1012

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
405060-95-9

Formula:
$C_{21}H_{17}Cl_3N_4OS$

Pathway:
Autophagy;Metabolic Enzyme/Protease

Target:
Autophagy;Phosphatase

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (104.21 mM)

Observed Molecular Weight:
479.81

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Product Description

Salubrinal is an inhibitor of phosphatases (**PP1**) that act on the eukaryotic translation initiation factor 2 subunit (**eIF2α**), with **IC_{50}** of 1.7 μM for blocking PP1 activity.

IC50 & Target: IC50: 1.7 μM (PP1)[1]

In Vitro: Salubrinal, a recently identified PP1 inhibitor capable to protect against endoplasmic reticulum (ER) stress in various model systems, strongly synergized with proteasome inhibitors to augment apoptotic death of different leukemic cell lines. Salubrinal preferentially seems to target the PP1/GADD34 complex, Salubrinal is of interest to examine whether the effect of Salubrinal could also be recapitulated by another inhibitor of this phosphatase. For this purpose cantharidin, wis selected, which is less toxic than okadaic acid, but which also blocks PP1 (IC_{50}=1.7 μM) activities[1].

In Vivo: Salubrinal is a synthetic chemical that inhibits de-phosphorylation of eukaryotic translation initiation factor 2 alpha (eIF2α). Salubrinal significantly suppresses inflammation of the paws of CAIA mice. For instance, the clinical scores are 1.94±1.7 (placebo) and 0.31±0.6 (Salubrinal) on day 6; and 4.63±3.4 (placebo) and 1.09±1.6 (Salubrinal) on day 12. Consistent with the clinical scores, the thickening of the paws is also reduced in the Salubrinal-treated group. Furthermore, Salubrinal reduces the histological scores from 1.47±1.10 (N=16; placebo) to 0.59±0.64 (N=16; Salubrinal) (p=0.01)[2].