

Product datasheet

Staurosporine ab120056

5 References 5 Images

Overview

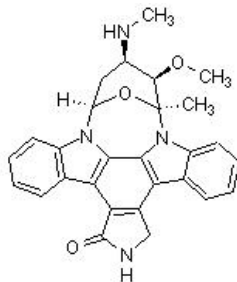
Product name	Staurosporine
Description	Protein kinase inhibitor
Biological description	Potent, cell-permeable, broad spectrum inhibitor of protein kinases. Kinases inhibited include: protein kinase C (IC ₅₀ = 3 nM), cAMP-dependent protein kinase (IC ₅₀ = 8 nM) and p60v-src (IC ₅₀ = 6 nM).
Purity	> 98%

Properties

Chemical name [9S-(9α,10β,11β,13α)]-2,3,10,11,12,13-Hexahydro-10-methoxy-9-methyl-11-(methylamino)-9,13-epoxy-1*H*,9*H*-diindolo[1,2,3-*gh*:3,2,1-*lm*]pyrrolo[3,4-*j*][1,7]benzodiazonin-1-one

Molecular weight 466.54

Chemical structure



Molecular formula C₂₈H₂₆N₄O₃

CAS Number 62996-74-1

PubChem identifier 44259

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 50 mM

Handling This product is supplied in one (or more) pack size which is freeze dried. Therefore the contents may not be readily visible, as they can coat the bottom or walls of the vial. Please see our [FAQs](#) and [information page](#) for more details on 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.

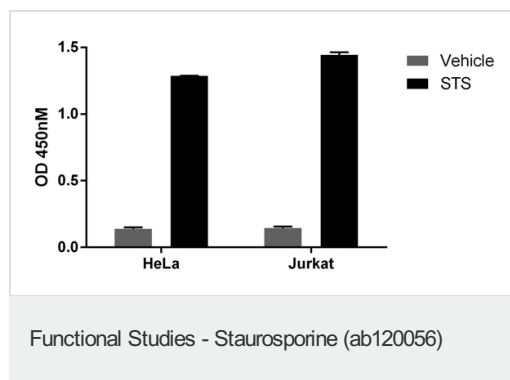
SMILES

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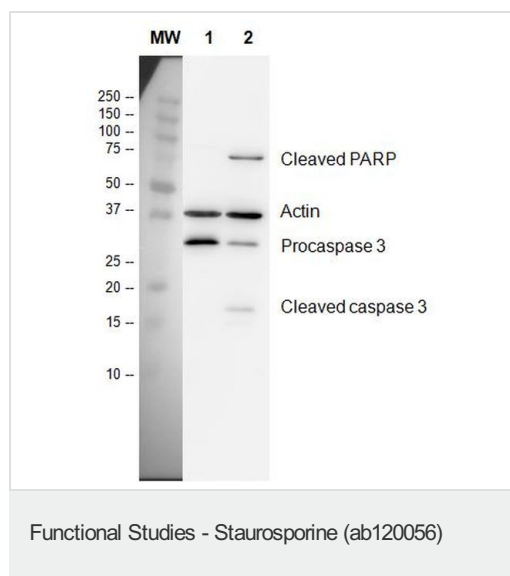
Source

Synthetic

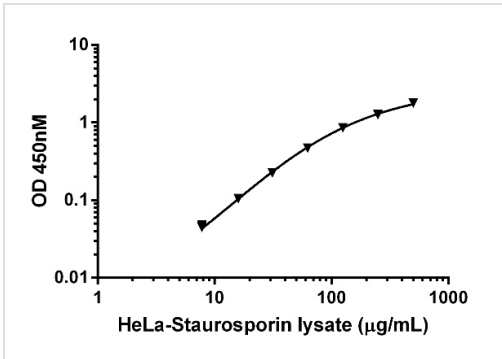
Images



HeLa and Jurkat cells were treated with 1 μ M Staurosporine (STS) (ab120056) for 4 hours in complete cell culture media to induce apoptosis and cleaved PARP protein. Untreated and STS treated HeLa and Jurkat lysates were prepared in 1X Cell Extraction Buffer PTR and tested the Cleaved PARP SimpleStep™ ELISA. Raw OD 450 nm values are shown for 500 μ g/mL lysate loads.

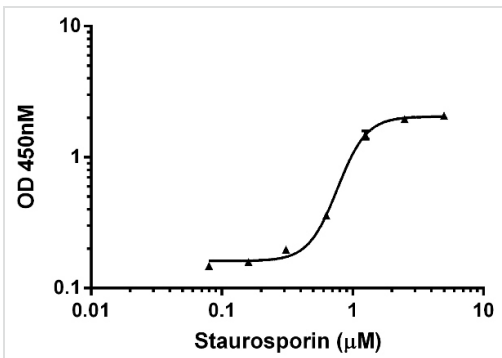


Lane 1: HeLa, vehicle (DMSO) treated for 4 hours Lane 2: HeLa 1 μ M staurosporine (ab120056), 4 hours Load 20 μ g/lane 5% milk/PBST for block and antibody diluent Primary antibodies (2 hours, room temp) All lanes: [ab136812](#) 250X Primary Antibodies Cocktail, 1/250 dilution Secondary antibodies (1 hour, room temp) All lanes: [ab136812](#) 100X HRP-Conjugated Secondary Antibodies Cocktail, 1/100 dilution



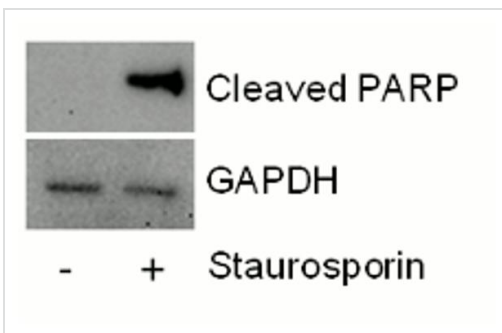
Functional Studies - Staurosporine (ab120056)

Example of HeLa staurosporine (ab120056) treated cell lysate titration. Background-subtracted data values (mean +/- SD) are graphed.



Functional Studies - Staurosporine (ab120056)

Example of IC₅₀ determination. HeLa cells were treated with a dose titration of Staurosporine for 4 hours in complete media. Cells were cultured and treated in a 96-well cell culture microtiter plate. Lysates were prepared by direct in-well lysis without media removal: 2X Cell Extraction Buffer PTR was added to an equal volume of media and then resulting lysate was used directly in the Cleaved PARP SimpleStep™ ELISA assay. Raw values for triplicate measurements are plotted. The calculated IC₅₀ is 0.77 µM.



Functional Studies - Staurosporine (ab120056)

Demonstration of Cleaved PARP capture antibody specificity by western blot assay. 20 µg of HeLa extracts that were untreated or treated for 4 hours with 1 µM Staurosporine were analyzed by western blot. The GAPDH blot is included to show the relative loads of each lysate. In the HeLa cell line, Staurosporine treatment is required to detect cleaved PARP protein, as observed in the SimpleStep ELISA.

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