For Research Use Only

Phospho-Caspase 9 (Ser196) Recombinant antibody

Catalog Number:80346-1-RR

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Basic Information

Catalog Number:
80346-1-RR

Size:
100ul , Concentration: 1000 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
BC002452

GeneID (NCBI):
842

UNIPROT ID:
P55211

Full Name:
caspase 9, apoptosis-related cysteine peptidase

Calculated MW:
46 kDa

Observed MW:
46 kDa, 35 kDa

Purification Method:
Protein A purification

CloneNo.:
3P16

Recommended Dilutions:
WB 1:2000-1:10000

Applications

Tested Applications:
WB, ELISA

Species Specificity:
human, mouse

Positive Controls:

WB : NIH/3T3 cells, HEK-293 cells, Jurkat cells, Calyculin A treated HEK-293 cells, Calyculin A treated Jurkat cells, Calyculin A treated NIH/3T3 cells

Background Information

Caspase 9 also name as MCH6, APAF3, APAF-3, ICE-LAP6 and CASPASE-9c, is a member of the cysteine-aspartic acid protease (caspase) family. It's synthesized as a 46kDa precursor protein which can be cleaved into a 35kDa subunit and a 11kDa subunit. The phosphorylated type can be detected at 55kDa and 35kDa. It plays a central role in the mitochondrial or intrinsic apoptotic pathway that is engaged in response to many apoptotic stimuli. Once activated, caspase-9 cleaves and activates the effector caspases 3 and 7 to bring about apoptosis. It can be phosphorylated by PKB/AKT1 at Ser196, this modification will downregulate its activity and decrease apoptosis. Akt phosphorylation site found in human caspase 9 is absent in mouse caspase 9.It's reported that there is an increase in caspase 9 expression and activity in the hypoxic brain. Inhibition of Caspase 9 activity would render opportunity to treat neurological diseases such as stroke, neurodegenerative diseases or brain injury caused by hypoxia. (PMID: 19788417, PMID: 10529400, PMID: 9812896, PMID: 18840507) In recent years, the localization of caspase9 was a focus of interest. Beside its cytoplasmic distribution, a very extensive localization study was done on rat brain tissue, where caspase9 was found located predominantly in the nucleus and to a lesser extend in the cytoplasm [PMID: 15541731].

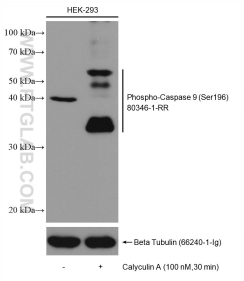
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

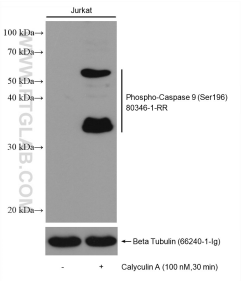
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

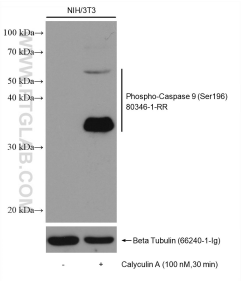
Selected Validation Data



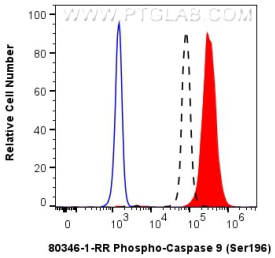
Non-treated HEK-293 and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 80346-1-RR (Phospho-Caspase 9 (Ser196) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control.



Non-treated Jurkat and Calyculin A treated Jurkat cells were subjected to SDS PAGE followed by western blot with 80346-1-RR (Phospho-Caspase 9 (Ser196) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control.



Non-treated NIH/3T3 and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 80346-1-RR (Phospho-Caspase 9 (Ser196) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin antibody as loading control.



1X10^6 HeLa cells untreated (dashed lines) or treated with Calyculin A which intracellularly stained with 0.13 ug Phospho-Caspase 9 (Ser196) Recombinant antibody (80346-1-RR, Clone:3P16) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.13 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.