For Research Use Only

Phospho-Caspase 9 (Ser196) Recombinant antibody, PBS Only

Catalog Number:80346-1-PBS

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
80346-1-PBS

Size:
1 mg/ml

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

Applications

Tested Applications:
WB,Indirect ELISA

Species Specificity:
Human, mouse

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 -80°C.
Storage Buffer:
PBS Only

For technical support and original validation data for this product please contact:
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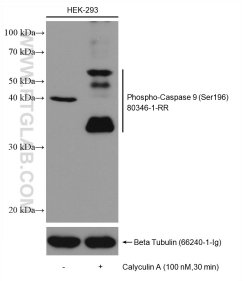
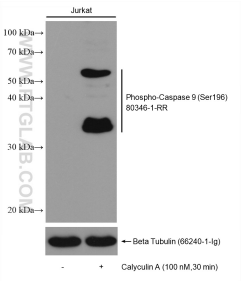
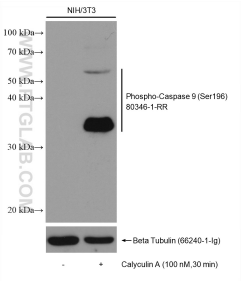
Selected Validation Data



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. This data was developed using the same antibody clone with 80346-1-PBS in a different storage buffer formulation.



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. This data was developed using the same antibody clone with 80346-1-PBS in a different storage buffer formulation.



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. This data was developed using the same antibody clone with 80346-1-PBS in a different storage buffer formulation.