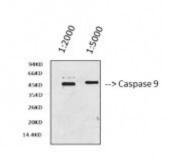


Anti-Caspase 9 antibody



Western Blot (WB) analysis of HELA cells using Caspase 9 Monoclonal Antibody diluted at 1:2000, 1:5000. (STJ96979)



Description Caspase-9 is a protein encoded by the CASP9 gene which is

approximately 46,2 kDa. Caspase-9 is localised to the cytosol, mitochondrion and nucleus. It is involved in the TNFR1 pathway, RET signalling and apoptosis modulation and signalling. Caspase-9 exist as an inactive proenzyme which undergoes proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. It is involved in the activation cascade of caspases responsible for apoptosis execution. Binding of caspase-9 to Apaf-1 leads to activation of the protease which then cleaves and activates caspase-3. Caspase-9 is ubiquitously expressed with highest expression in the heart. Mutations in the CASP9 gene may result in cerebral hypoxia and cervical cancer. STJ96979 was affinity purified. This monoclonal antibody binds endogenous caspase-9.

Model STJ96979

Host Mouse

Reactivity Avian, Human, Mouse, Rat

Applications IP, WB

Immunogen Synthetic Peptide

Gene ID <u>842</u>

Gene Symbol CASP9

Dilution range WB 1:1000-5000IP 1:200

Specificity The antibody detects endogenous Caspase 9 protein.

Tissue Specificity Ubiquitous, with highest expression in the heart, moderate expression in liver,

skeletal muscle, and pancreas. Low levels in all other tissues. Within the heart,

specifically expressed in myocytes.

Purification The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.

Clone ID 43891

Note For Research Use Only (RUO).

Protein Name Caspase-9 CASP-9 Apoptotic protease Mch-6 Apoptotic protease-activating

factor 3 APAF-3 ICE-like apoptotic protease 6 ICE-LAP6 Caspase-9 subunit

p35 Caspase-9 subunit p10

Clonality Monoclonal

Conjugation Unconjugated

Isotype IgG1

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:1511OMIM:602234</u>

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Function Involved in the activation cascade of caspases responsible for apoptosis

execution. Binding of caspase-9 to Apaf-1 leads to activation of the protease which then cleaves and activates caspase-3. Promotes DNA damage-induced apoptosis in a ABL1/c-Abl-dependent manner. Proteolytically cleaves poly(ADP-ribose) polymerase (PARP).; Isoform 2 lacks activity is an

dominant-negative inhibitor of caspase-9.

Post-translational Cleavages at Asp-315 by granzyme B and at Asp-330 by caspase-3 generate

the two active subunits. Caspase-8 and -10 can also be involved in these

processing events.; Phosphorylated at Thr-125 by MAPK1/ERK2.

Phosphorylation at Thr-125 is sufficient to block caspase-9 processing and subsequent caspase-3 activation. Phosphorylation on Tyr-153 by ABL1/c-Abl;

occurs in the response of cells to DNA damage.

Modifications