

DESCRIPTION

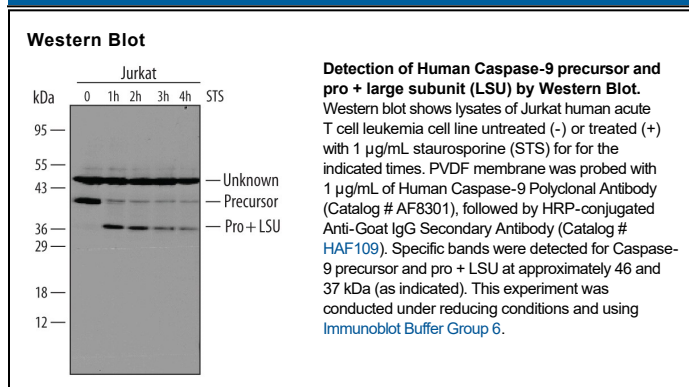
Species Reactivity	Human
Specificity	Detects human Caspase-9 precursor and the pro + large subunit (LSU) that migrates as a 37 kDa band on SDS-PAGE generated by cleavage at Asp330. Does not detect the pro + LSU that migrates as a 34 kDa band on SDS-PAGE generated by cleavage at Asp315. Therefore, the major epitope detected occurs between Asp315 and Asp330.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Caspase-9 Val139-Asp330 Accession # P55211
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	Immersion fixed Jurkat human acute T cell leukemia cell line treated with Staurosporin

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Caspase-9 (Cysteine-**asp**artic acid protease 9/Casp-9; also APAF-3, Mch6 and ICE-LAP6) is a 35-37 kDa member of the peptidase C14A family of enzymes. Casp-9 is an initiator caspase that is part of the intrinsic apoptosis pathway. It is widely expressed and is particularly important during development. Human proCaspase-9 is a 47-48 kDa, 416 amino acid (aa) protein and it contains one CARD region (aa 1-92) and catalytic residues at His237 and Cys287. Following mitochondrial disruption, cytochrome c is released from mitochondria. Cytochrome c acts on APAF-1, which induces procaspase-9 dimerization. The act of dimerization activates proCasp-9, leading to either the activation of Casp-3, or the autocleavage of proCasp-9, generating a 35 kDa subunit (aa 1-315) and a 12 kDa subunit. Activated Casp-3 will also act on proCasp-9, generating a 37 kDa subunit (aa 1-330) and a 10 kDa subunit (aa 331-416). These subunits associate to form an active heterotetramer. Casp-9 has an alternative start site at Met84 and a deletion of aa 140-289 that generates a dominant negative, 31 kDa isoform. Over aa 1-134, human Casp-9 shares 81% aa identity with mouse Casp-9; over aa 139-330, human Casp-9 shares 73% aa identity with mouse Casp-9.