

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Caspase-9 in Western blots and captures Caspase-9 complexed with APAF-1.
Source	Monoclonal Mouse IgG ₁ Clone # LAP6
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Caspase-9 aa 1-134
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Caspase-9 (Cysteine-aspartic 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.

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