

DESCRIPTION

Species Reactivity	Human
Specificity	Detects the active form and p17 subunit of Caspase-3 in direct ELISAs, with less than 5% cross-reactivity with the precursor form observed.
Source	Monoclonal Rabbit IgG Clone # 1112I
Purification	Protein A or G purified from cell culture supernatant
Immunogen	KLH-conjugated human Caspase-3 synthetic peptide CRGTELDGCIETD Accession # P42574
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.

Immunocytochemistry 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-3 (Cysteine-aspartic acid protease 3/Casp3; also Yama, apopain and CPP32) is a 29 kDa heterodimer that belongs to the peptidase C14A family of enzymes. It is widely expressed and considered to be the major executioner caspase in the apoptotic cascade. Human procaspase-3 is a 32 kDa, 277 amino acid (aa) protein and is normally an inactive homodimer. Following cell stress/activation, procaspase-3 undergoes proteolysis to generate an N-terminal 148 aa p17/17 kDa subunit (aa 29-175), plus a 102 aa C-terminal p12/12 kDa subunit. These subunits noncovalently heterodimerize, and associate with another p17/p12 heterodimer to form an active enzyme. There is one potential variant that shows an alternative start site nine aa upstream of the standard start site coupled with a 21 aa substitution for aa 162-277. Over aa 29-175, human and mouse caspase-3 share 87% aa identity.

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