Human/Mouse Cleaved Caspase-3 Alexa Fluor® 488-conjugated Antibody

Monoclonal Rabbit IgG Clone # 269518
Catalog Number: IC835G
25 TESTS

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Caspase-3 cleaved at Asp175. No cross-reactivity was detected with the full-length procaspase-3 or other caspases.
Source	Monoclonal Rabbit IgG Clone # 269518
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	KLH-conjugated human Caspase-3 synthetic peptide CRGTELDCGIETD Accession # U26943
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

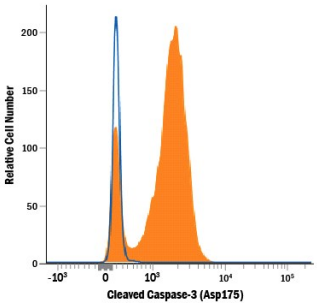
APPLICATIONS

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.*

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	5 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of Cleaved Caspase-3 in Jurkat Human Cell Line by Flow Cytometry. Jurkat human acute T cell leukemia cell line untreated (open histogram) or treated with 1 µM Staurosporine for 3 hours (filled histogram) was stained with Rabbit Anti-Human/Mouse Caspase-3 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # IC835G, filled histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with 90% methanol. View our protocol for Staining Intracellular Molecules.

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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