

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Caspase-3 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 11121
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human Caspase-3 synthetic peptide Accession # P42574
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 as a 0.2 µm filtered solution in PBS.

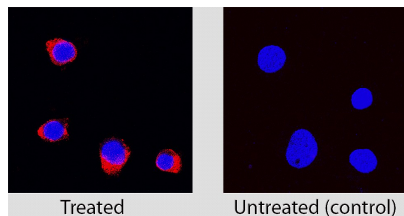
APPLICATIONS

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
Immunocytochemistry	1-25 µg/mL	See Below

DATA

Immunocytochemistry



Caspase-3 in Jurkat Human Cell Line. Caspase-3 was detected in immersion fixed Jurkat human acute T cell leukemia cell line treated with Staurosporine using Rabbit Anti-Human Caspase-3 Monoclonal Antibody (Catalog # MAB7071) at 1 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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-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.