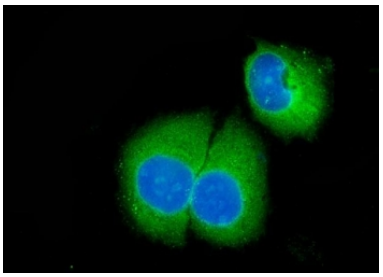
Caspase-3 Antibody (p17 subunit) (RQ6831)

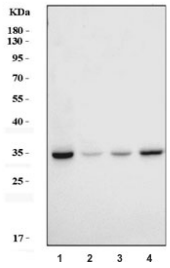
Catalog No.	Formulation	Size
RQ6831	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

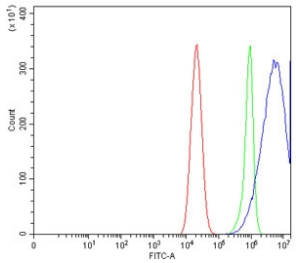
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P42574
Localization	Cytoplasmic
Applications	Western Blot : 1-2ug/ml Immunofluorescence (FFPE) : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This Caspase-3 antibody is available for research use only.



Immunofluorescent staining of FFPE human SiHa cells with Caspase-3 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot testing of human 1) Jurkat, 2) HeLa, 3) 293T and 4) HepG2 cell lysate with Caspase-3 antibody. Predicted molecular weight: ~32 kDa (pro form), ~17 kDa (p17 subunit).



Flow cytometry testing of human Caco-2 cells with Caspase-3 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Caspase-3 antibody.

Description

Caspase 3 is a caspase protein which interacts with Survivin, XIAP, CFLAR, Caspase 8, HCLS1, Deleted in Colorectal Cancer, TRAF3 and GroEL. This gene which is located on 4q35 encodes a protein that is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes that undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. And the caspase-3 activation in heart failure sequentially cleaves SRF and generates a truncated SRF that appears to function as a dominant-negative transcription factor. Additionally, the caspase-3 influence on bone mineral absorbance should be considered in any in vivo application of caspase-3 inhibitors to the treatment of human disease. In erythroid precursors undergoing terminal differentiation, Hsp70 prevents active CASP3 from cleaving GATA1 and inducing apoptosis.

Application Notes

Optimal dilution of the Caspase-3 antibody should be determined by the researcher.

Immunogen

Amino acids Amino acids FRNLKYEVRNKNDLTREEIVELMR from the human protein were used as the immunogen for the Caspase-3 antibody.

Storage

After reconstitution, the Caspase-3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.