

# Anti-Human Caspase-3 DyLight® 488 conjugated CASP3 Antibody

Catalog Number: A00334-Dyl488

### **About CASP3**

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 density 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.

#### Overview

Product Name	Anti-Human Caspase-3 DyLight® 488 conjugated CASP3 Antibody
Reactive Species	Human
Description	Boster Bio Anti-Human Caspase-3 DyLight® 488 conjugated CASP3 Antibody catalog # A00334-Dyl488. Tested in Flow Cytometry applications. This antibody reacts with Human.
Conjugate	DyLight®488
Application	Flow Cytometry
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na2HPO4, 0.02% NaN3.
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.
Host	Rabbit
Uniprot ID	P42574

## **Technical Details**

Immunogen	E.coli-derived human Caspase-3 recombinant protein (Position: T67-D175). Human Caspase-3 shares 86% and 90% amino acid (aa) sequence identity with mouse and rat Caspase-3, respectively.
Predicted Reactive Species	Bovine
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG





888-466-3604 | support@bosterbio.com | www.bosterbio.com

Form	Liquid
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.  If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.  Some PubMed article(s) citing the expression level of this target are as follows:  Boster Bio's internal QC testing used: Flow Cytometry, 1-3ug/1x10 <sup>6</sup> cells



# Anti-Human Caspase-3 DyLight® 488 conjugated CASP3 Antibody (A00334-Dyl488) Images

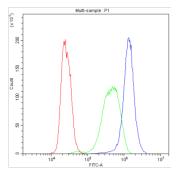


Figure 1. Flow Cytometry analysis of K562 cells using anti-Human Caspase-3 antibody (A00334-Dyl488). Overlay histogram showing K562 cells stained with A00334-Dyl488 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Human Caspase-3 Antibody (A00334-Dyl488, 1ug/1x10 $^6$  cells) for 30 min at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10 $^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

## **49 Publications Citing This Product**

- 1. PubMed ID: 25878598, Ulinastatin suppresses endoplasmic reticulum stress and apoptosis in the hippocampus of rats with acute paraquat poisoning
- 2. PubMed ID: 22848278, Chu Sh, Ma Yb, Feng Df, Zhang H, Qiu Jh, Zhu Za. Oncol Lett. 2011 Nov;2(6):1139-1142. Epub 2011 Aug 4. Elevated Expression Of Solute Carrier Family 22 Member 18 Increases The Sensitivity Of U251 Glioma Cells To Bcnu.
- 3. PubMed ID: 24163590, Diabetes Inhibits Cerebral Ischemia-Induced Astrocyte Activation an Observation in the Cingulate Cortex

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