

Anti-Caspase-3 Antibody Picoband® (monoclonal, 15G8) Fluoro647 Conjugated

Catalog Number: M00334-7-Fluoro647

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-Caspase-3 Antibody Picoband® (monoclonal, 15G8) Fluoro647 Conjugated |
| Reactive Species | Human |
| Application | Recommended applications are based on the parent unconjugated antibody (Flow Cytometry, IF, IHC, ICC, WB). Customers may select suitable applications according to their experimental needs. |
| Clonality | Monoclonal 15G8 |
| Formulation | Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% NaN ₃ . |
| Storage Instructions | At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light. |
| Host | Mouse |
| 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. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Mouse IgG1 |
| Form | Liquid |
| Concentration | 0.5 mg/mL |

| | |
|---------------------|---|
| Purification | Immunogen affinity purified. |
| Conjugate | Fluoro647 Excitation Wavelength: 650 nm Emission Wavelength: 665 nm |
| Suggested Dilutions | Optimal dilutions should be determined by end users. |

17 Publications Citing This Product

1. PubMed ID: 30655770, Liu DX, Li PP, Guo JP, Li LL, Guo B, Jiao HB, Wu JH, Chen JM. Exosomes derived from HBV-associated liver cancer promote chemoresistance by upregulating chaperone-mediated autophagy. *Oncol Lett*. 2019 Jan;17(1):323-331. doi:10.3892/ol.2018.9584. Epub 2018 Oct 16. PMID:30655770; PMCID: PMC6313222.

2. PubMed ID: 31702040, Zhang Z, Wang J, Zhu Y, Zhang H, Wang H. Astragaloside IV alleviates myocardial damage induced by type 2 diabetes via improving energy metabolism. *Mol Med Rep*. 2019 Nov;20(5):4612-4622. doi:10.3892/mmr.2019.10716. Epub 2019 Oct 1. PMID:31702040; PMCID: PMC6797977.

3. PubMed ID: 33044585, Yu Y, Wang Y, Fei X, Song Z, Xie F, Yang F, Liu X, Xu Z, Wang G. All-Trans Retinoic Acid Prevented Vein Grafts Stenosis by Inhibiting Rb-E2F Mediated Cell Cycle Progression and KLF5-RARalpha Interaction in Human Vein Smooth Muscle Cells. *Cardiovasc Drugs Ther*. 2020 Oct

Visit bosterbio.com/anti-casp3-picoband-trade-antibody-monoclonal-m00334-7-boster.html to see all 17 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-Caspase-3 Antibody (monoclonal, 15G8) - Fluoro647

For Research Use Only. Not for use in diagnostic procedures.