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CASP5 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP10944b

Specification

CASP5 Antibody (Center) - Product Information

Application	**WB, FC, IHC-P,E**
Primary Accession	P51878
Other Accession	NP_001129582.1, NP_001129584.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**162-191**

CASP5 Antibody (Center) - Additional Information

Gene ID 838

Other Names
Caspase-5, CASP-5, ICE(rel)-III, Protease ICH-3, Protease TY, Caspase-5 subunit p20, Caspase-5 subunit p10, CASP5, ICH3

Target/Specificity
This CASP5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 162-191 amino acids from the Central region of human CASP5.

Dilution
WB~~1:1000
FC~~1:10~50
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CASP5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CASP5 Antibody (Center) - Protein Information

Name CASP5 {ECO:0000303|PubMed:16893518, ECO:0000312|HGNC:HGNC:1506}

Function Thiol protease that acts as a mediator of programmed cell death (PubMed:28314590, PubMed:29898893). Initiates pyroptosis, a programmed lytic cell death pathway through cleavage of Gasdermin-D (GSDMD): cleavage releases the N-terminal gasdermin moiety (Gasdermin- D, N-terminal) that binds to membranes and forms pores, triggering pyroptosis (PubMed:29898893). Also mediates cleavage and maturation of IL18 (PubMed:37993714). Cleavage of GSDMD and IL18 is not strictly dependent on the consensus cleavage site but depends on an exosite interface on CASP4 (PubMed:37993714). During non-canonical inflammasome activation, cuts CGAS and may play a role in the regulation of antiviral innate immune activation (PubMed:28314590).

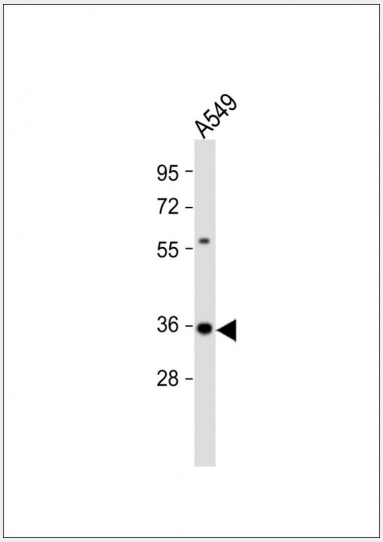
Tissue Location
Expressed in barely detectable amounts in most tissues except brain, highest levels being found in lung, liver and skeletal muscle.

CASP5 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CASP5 Antibody (Center) - Images



Anti-CASP5 Antibody (Center) at 1:2000 dilution + A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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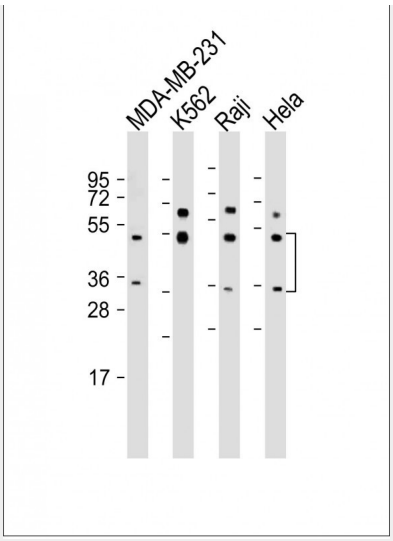
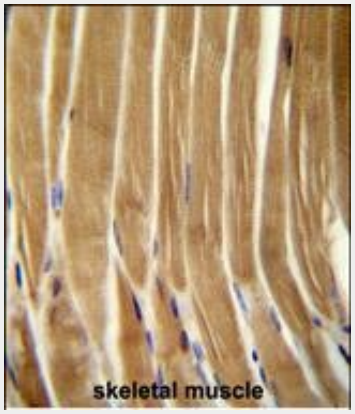
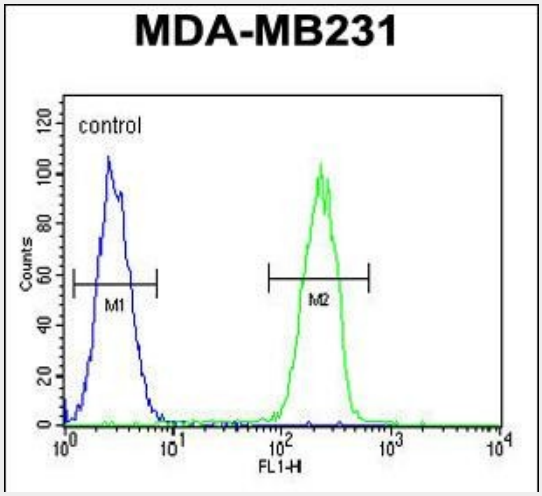


All lanes : Anti-CASP5 Antibody (Center) at 1:1000 dilution Lane 1: MDA-MB-231 whole cell lysate Lane 2: K562 whole cell lysate Lane 3: Raji whole cell lysate Lane 4: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



CASP5 Antibody (Center) (Cat. #AP10944b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CASP5 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



CASP5 Antibody (Center) (Cat. #AP10944b) flow cytometric analysis of MDA-MB231 cells (right

histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CASP5 Antibody (Center) - Background

This gene encodes 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 which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. Overexpression of the active form of this enzyme induces apoptosis in fibroblasts. Max, a central component of the Myc/Max/Mad transcription regulation network important for cell growth, differentiation, and apoptosis, is cleaved by this protein; this process requires Fas-mediated dephosphorylation of Max. The expression of this gene is regulated by interferon-gamma and lipopolysaccharide. Alternatively spliced transcript variants have been identified for this gene.

CASP5 Antibody (Center) - References

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Notaridou, M., et al. Int. J. Cancer (2010) In press :
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Liang, X.S., et al. Br. J. Haematol. 146(4):418-423(2009)
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