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Anti-Caspase 5 Antibody

Catalog # AP51044

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P51878
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49736

Additional Information

Gene ID	838
Other Names	ICH3; Caspase-5; CASP-5; ICE(rel)-III; Protease ICH-3; Protease TY
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Caspase 5. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

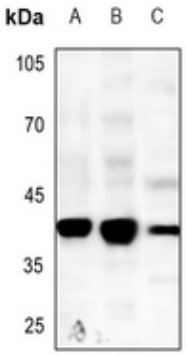
Protein Information

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.

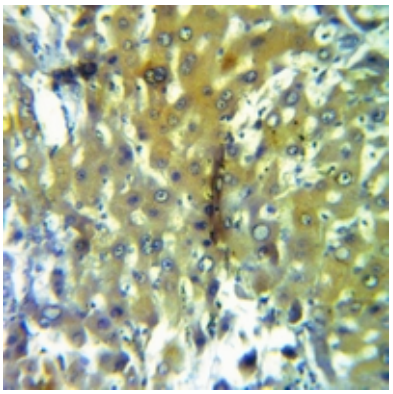
References

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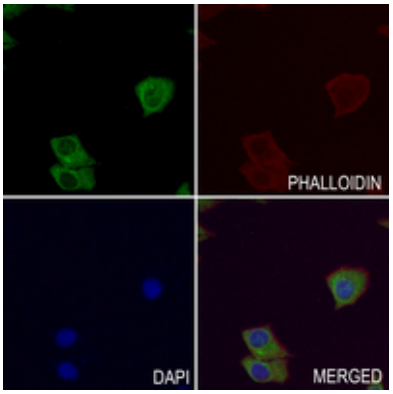
Images



Western blot analysis of Caspase 5 expression in HCT116 (A), CT26 (B), C6 (C) whole cell lysates. (Predicted band size: 49 kD; Observed band size: 35; 44; 50 kD)



Immunohistochemical analysis of Caspase 5 staining in human prostate formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Caspase 5 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.