

Product datasheet for **TA336409**

Caspase 1 (CASP1) Mouse Monoclonal Antibody [Clone ID: 14F468]

Product data:

Product Type:	Primary Antibodies
Clone Name:	14F468
Applications:	ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Immunohistochemistry-Frozen, Simple Western: 1:50, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin: 1:10-1:500, Immunohistochemistry: 1:100 - 1:500, Western Blot: 0.5-2 ug/ml
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to amino acids 371-390 RQVRFSEFQPDGRAQMPTE of human caspase-1 was used as immunogen.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	45 kDa
Gene Name:	caspase 1
Database Link:	NP_150634 Entrez Gene 12362 Mouse Entrez Gene 834 Human P29466



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Background: Caspases are a family of cysteine proteases that are key mediators of programmed cell death or apoptosis. The precursor form of all caspases is composed of a prodomain, and large and small catalytic subunits. The active forms of caspases are generated by several stimuli including ligand-receptor interactions, growth factor deprivation and inhibitors of cellular functions. All known caspases require cleavage adjacent to aspartates to liberate one large and one small subunit, which associate into tetramer to form the active enzyme. Caspase-1/ICE (IL-1b converting enzyme) is similar to the cell death gene CED-3 of *Caenorhabditis elegans* and regulates multiple proinflammatory cytokines, including interleukin-1b and interferon-gamma-inducing factor.

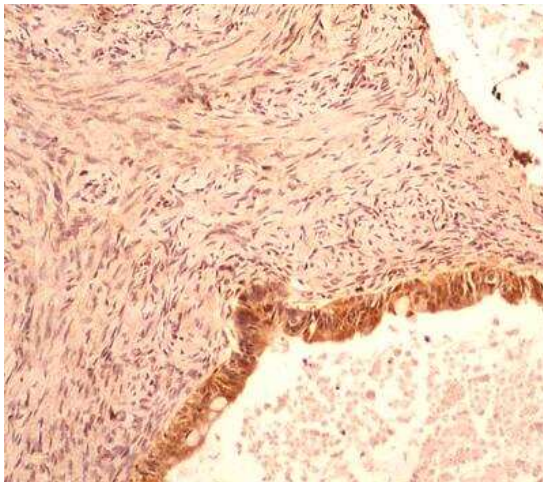
Synonyms: ICE; IL1BC; P45

Note: Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.

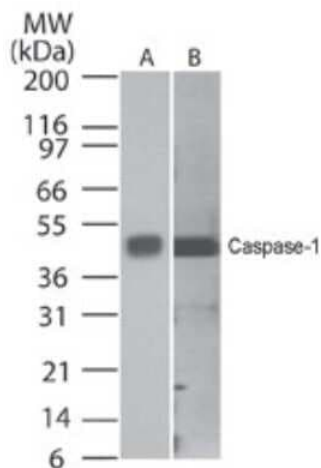
Protein Families: Druggable Genome, Protease

Protein Pathways: Amyotrophic lateral sclerosis (ALS), Cytosolic DNA-sensing pathway, NOD-like receptor signaling pathway

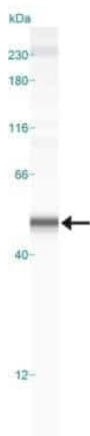
Product images:



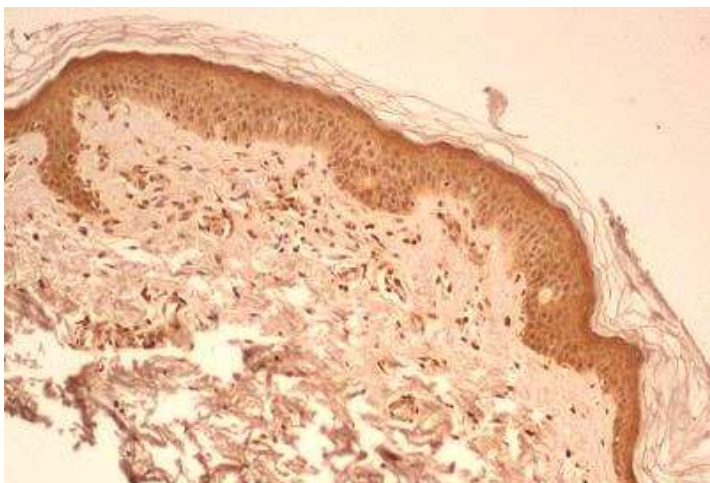
Detection of Caspase-1 in a section of human ovarian cancer using 5 ug/ml concentration of Caspase 1 antibody (clone 14F468).



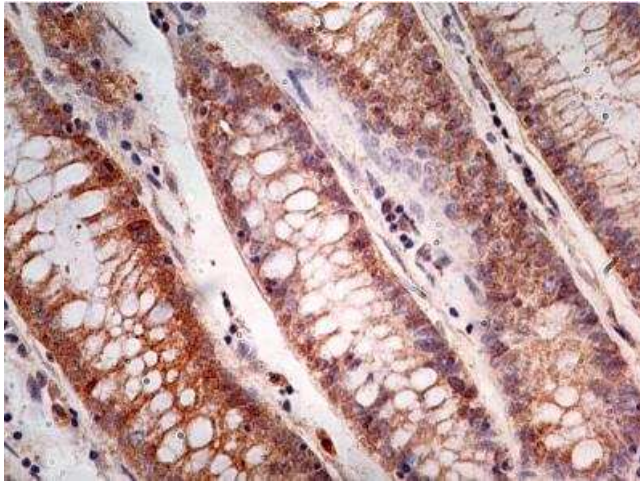
Analysis of Caspase-1 using a Caspase-1 monoclonal antibody. Human HeLa (A) and mouse NIH3T3 lysate probed with Caspase-1 antibody at 0.5 ug/ml and 2 ug/ml, respectively.



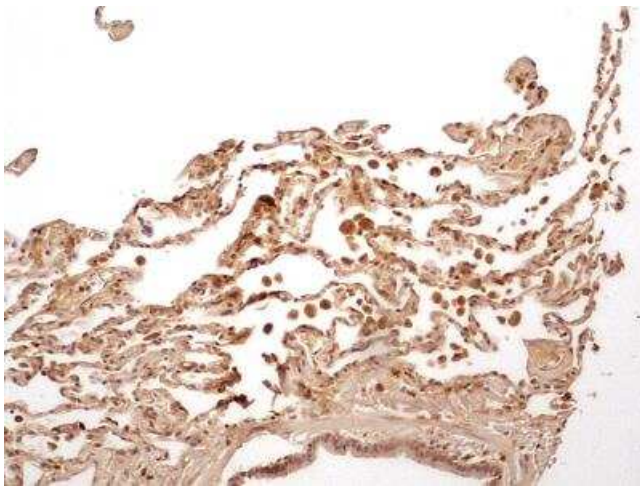
Simple Western lane view shows a specific band for Caspase 1 in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



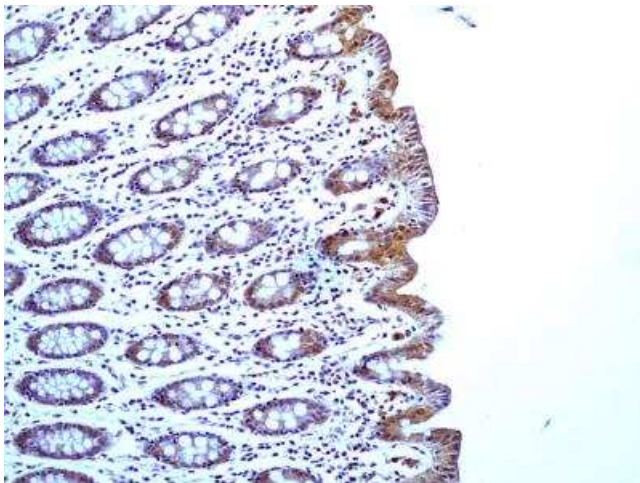
Normal skin from human using 5 ug/ml concentration of Caspase 1 antibody (clone 14F468). Strong cytoplasmic/nuclear staining developed in all the epidermal cells, blood vessels and some cells of the dermal connective tissues layer. [10X Magnification]



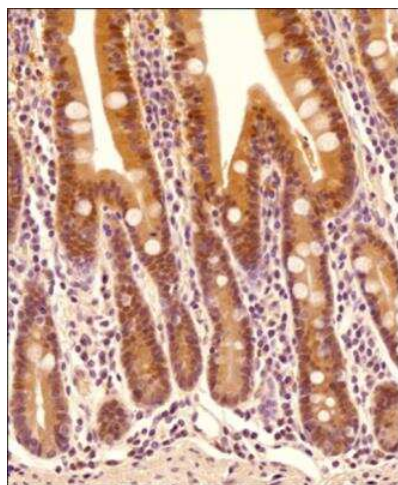
Adenocarcinoma of the rectum stained with Caspase-1 antibody (5 ug/ml), peroxidase-conjugate and DAB chromogen. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.



Normal lung from human using 5 ug/ml concentration of Caspase 1 antibody (clone 14F468). In this representative lung section, different type of cells including pseudostratified columnar epithelium of bronchiole and the simple squamous epithelium of alveoli may be seen to develop immunoreactivity for Caspase 1. [10X Magnification]



Detection of Caspase-1 protein in a section of normal human colon using 5 ug/ml concentration of Caspase 1 antibody (clone 14F468). Distinct cytoplasmic staining along with some nuclear positivity was observed in crypts/mucosa, and staining was found to be more intense in the absorptive columnar epithelial cells. [10X Magnification]



Tissue section of human intestine using Caspase-1 antibody (clone 14F468) at 5ug/ml concentration (1:200 dilution). The primary antibody binding to Caspase 1 in cells was detected using HRP conjugated anti-Mouse secondary antibody with DAB reagent, and the sections were further counterstained with hematoxylin for labeling cellular nuclei. This Caspase 1 antibody generated a diffused but specific cytoplasmic staining in columnar epithelia cells of villi, and a few cells depicted nuclear staining also. Only a subset of connective tissue cells in lamina propria depicted positivity (cytoplasmic) for this protein.