

**Product Name: Caspase-1 (phospho Ser376) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04366**

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## Summary

<b>Production Name</b>	Caspase-1 (phospho Ser376) Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	ELISA,IHC,WB,
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phospho Antibody
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	CASP1
<b>Alternative Names</b>	CASP1; IL1BC; IL1BCE; Caspase-1; CASP-1; Interleukin-1 beta convertase; IL-1BC; Interleukin-1 beta-converting enzyme; ICE; IL-1 beta-converting enzyme; p45
<b>Gene ID</b>	834.0
<b>SwissProt ID</b>	P29466.The antiserum was produced against synthesized peptide derived from human Caspase 1 around the phosphorylation site of Ser376. AA range:342-391

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000 IHC 1:100 - 1:300. ELISA: 1:20000..
<b>Molecular Weight</b>	45kD

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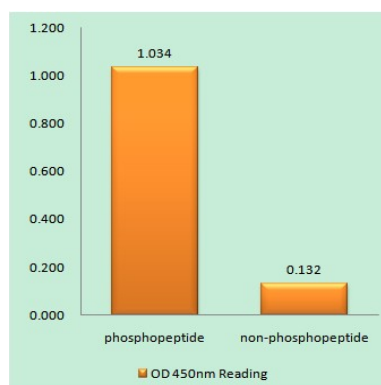
## Background

This gene encodes a protein which 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 which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2012], alternative products: Additional isoforms seem to exist, catalytic activity: Strict requirement for an Asp residue at position P1 and has a preferred cleavage sequence of Tyr-Val-Ala-Asp-[-], enzyme regulation: Specifically inhibited by the cowpox virus Crma protein, function: Thiol protease that cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. Important for defense against pathogens. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Can also promote apoptosis, PTM: The two subunits are derived from the precursor sequence by an autocatalytic mechanism, similarity: Belongs to the peptidase C14A family, similarity: Contains 1 CARD domain, subunit: Heterotetramer that consists of two anti-parallel arranged heterodimers, each one formed by a 20 kDa (p20) and a 10 kDa (p10) subunit. The p20 subunit can also form a heterodimer with the epsilon isoform which then has an inhibitory effect. May be a component of the inflammasome, a protein complex which also includes PYCARD, CARD8 and NALP2 and whose function would be the activation of proinflammatory caspases. Interacts with CARD17/INCA and CARD18, tissue specificity: Expressed in larger amounts in spleen and lung. Detected in liver, heart, small intestine, colon, thymus, prostate, skeletal muscle, peripheral blood leukocytes, kidney and testis. No expression in the brain.

## Research Area

NOD-like receptor; Cytosolic DNA-sensing pathway; Amyotrophic lateral sclerosis (ALS);

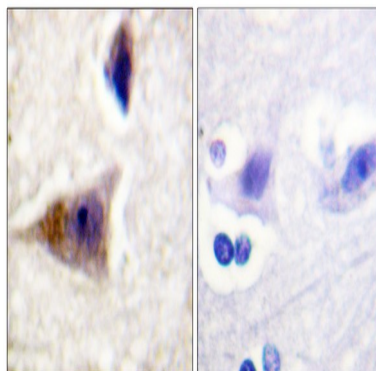
## Image Data



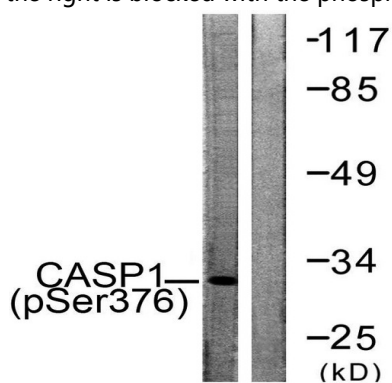
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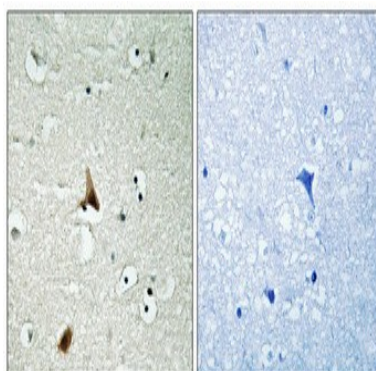
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using Caspase 1 (Phospho-Ser376) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using Caspase 1 (Phospho-Ser376) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 293 cells, using Caspase 1 (Phospho-Ser376) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°, overnight) . High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.

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**Note**

For research use only.