

# Polyclonal Anti-CASP1(p10) Antibody

Catalog Number: PA1522

## Description

<b>Gene Name</b>	caspase 1, apoptosis-related cysteine peptidase
<b>Recommended Protein Name</b>	Caspase-1
<b>Lot No.</b>	01511121322119
<b>Size</b>	100µg/vial
<b>Form</b>	lyophilized
<b>Ig type</b>	Rabbit IgG
<b>Specificity</b>	No cross reactivity with other proteins.
<b>Purification</b>	Immunogen affinity purified.
<b>Species</b>	<b>Reacts with:</b> human
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence at the C-terminus of human CASP1(p10)(249-262aa VFIGRLIEHMQEYA ).
<b>Contents</b>	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg Thimerosal, 0.05mg NaN <sub>3</sub> .

## Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1 µg/ml	Hu	-	By Heat

**Tested Species:** In-house tested species with positive results.

**Predicted Species:** Species predicted to be fit for the product based on sequence similarities.

**By Heat:** Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end users.*

## Preparation and storage

**Reconstitution:** 0.2ml of distilled water will yield a concentration of 500µg/ml.

**Storage:** At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

## Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

## Background

Caspase 1, apoptosis-related cysteine protease, is a cysteine protease that regulates inflammatory processes through its capacity to process and activate the interleukin-1-beta, IL18, and IL33 precursor proteins. Caspase 1 was purified ICE from the cytosol of the THP.1 human monocytic cell line and found that the active protease was made up of 2 peptides, which they called p20 and p10 based on their apparent molecular masses by SDS-PAGE. It belongs to a family of cysteine proteases known as caspases that always cleave proteins following an aspartic acid residue. The Caspase1 gene consists of 10 exons spanning at least 10.6 kb. The Caspase 1 gene is mapped to 11q23, a site frequently involved in rearrangement in human cancers, including a number of leukemias and lymphomas, by Southern DNA blot analysis of rodent-human hybrids and by in situ hybridization to normal human metaphase chromosomes. Caspase 1 has been shown to induce cell necrosis or pyroptosis and may function in various developmental stages.

## Reference

1. Cerretti, D. P., Hollingsworth, L. T., Kozlosky, C. J., Valentine, M. B., Shapiro, D. N., Morris, S. W., Nelson, N. Molecular characterization of the gene for human interleukin-1-beta converting enzyme (IL1BC). Genomics 20: 468-473, 1994.
2. Thornberry, N. A., Bull, H. G., Calaycay, J. R., Chapman, K. T., Howard, A. D., Kostura, M. J., Miller, D. K., Molineaux, S. M., Weidner, J. R., Aunins, J., Elliston, K. O., Ayala, J. M., Casano, F. J., Chin, J., Ding, G. J.-F., Egger, L. A., Gaffney, E. P., Limjuco, G., Palyha, O. C., Raju, S. M., Rolando, A. M., Salley, J. P., Yamin, T.-T., Lee, T. D., Shively, J. E., MacCross, M., Mumford, R. A., Schmidt, J. A., Tocci, M. J. A novel heterodimeric cysteine protease is required for interleukin-1-beta processing in monocytes. Nature 356: 768-774, 1992.