



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

RABBIT ANTI HUMAN CASPASE-1 (C-TERMINAL)

With HRP-conjugated Secondary Antibody

Catalog No.
DS-PB-00372

Species
Human

Isotype
Rabbit IgG

Preparation

Immunogen: A 16 amino acid peptide located near human Caspase-1 carboxy terminus

Purification: Antisera to human Caspase-1 (CT) were raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.

Specificity

DS-PB-00372 recognizes an epitope within the C-terminal region (CT) of human Caspase-1, otherwise known as IL-1 β converting enzyme. Caspase-1 is an intracellular cysteine protease, identified as a mammalian homologue to *C. elegans* cell death gene (*ced-3*). Caspase-1 has been classified as an inflammatory, rather than apoptotic caspase, due to its essential role in the cleavage of the inactive precursors of the cytokines IL-1 β and IL-18, into their mature activated and secretable forms. This regulation of pro-inflammatory cytokines by Caspase-1 has made inhibitors of Caspase-1 a possible target for use as therapeutic drugs for the treatment of inflammatory diseases (1,2). This product detects a cleaved subunit band of approximately 21 kDa in human heart cell lysates (predicted precursor MWT 45.2kDa).

Formulation

Product Form: Purified IgG – liquid

Buffer Solution: Phosphate buffered saline

Preservative & Stabilizers: 0.02% Sodium Azide

Approx. Protein Concentrations: IgG concentration 1.0 mg/ml

Histology Positive Control Tissue

This product uses human heart tissue as the histology positive control tissue.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Storage

18 months shelf life. Store at +4°C or at -20°C if preferred.

This product should be stored undiluted. Storage in frost-free freezers is not recommended. Should this product contain a precipitate we recommend microcentrifugation before use.

Please avoid freeze-thaw cycles.

Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting	•			0.5-1.0ug/ml
Immunohistology - frozen			•	
Immunohistology - paraffin	•			2.0ug/ml This product does not require protein digestion pre-treatment of paraffin embedded sections e.g. trypsin or pronase prior to staining.
Immunohistology - resin			•	
Immunoprecipitation			•	
Flow Cytometry			•	
Immunofluorescence staining			•	
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Secondary Antibody Applications

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

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Reference

1. Ghayur, T. et al. (1997) Caspase-1 processes IFN-gamma-inducing factor and regulates LPS-induced IFN-gamma production. *Nature*. 386: 619-623.
2. Fantuzzi, G. et al. (1998) Interleukin-18 regulation of interferon gamma production and cell proliferation as shown in interleukin-1beta-converting enzyme (Caspase-1)-deficient mice. *Blood*. 91: 2118-2125.
3. Kostura, M.J. et al. (1989) Identification of a monocyte specific pre-interleukin 1beta convertase activity. *P.N.A.S USA* 86: 5227-5231.
4. Miura, M. et al. (1993) Induction of apoptosis in fibroblasts by IL-1 beta-converting enzyme, a mammalian homolog of the *C. elegans* cell death gene *ced-3*. *Cell*. 75: 653-660.

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