



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

## RABBIT ANTI HUMAN CASPASE5

With HRP-conjugated Secondary Antibody

**Catalog No.**  
DS-PB-00380

**Target Species**  
Human

**Isotype**  
IgG

### Preparation

**Immunogen:** A 14 amino acid peptide from the centre of human Caspase5

**Purification:** Human Caspase5 were raised by repeated immunization of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.

### Formulation

**Product Type:** Polyclonal Antibody

**Product Form:** Purified IgG - liquid

**Buffer Solution:** Phosphate buffered saline

**Preservative Stabilizers:** 0.02% Sodium Azide ( $\text{NaN}_3$ )

**Approx. Protein Concentration:** IgG concentration 1.0 mg/ml

### Specificity

DS-PB-00380 recognizes an epitope located within the internal region of human Caspase5, a 47kDa cysteine protease, otherwise known as ICH3. Caspase5 has been shown to be expressed at higher levels in the colon, lung, spleen, small intestine and by peripheral blood lymphocytes.

Caspase5 is a member of a growing number of inflammatory caspases belonging to the Caspase1 (ICEtype) subfamily, which require proteolytic processing of their inactive precursor into smaller active subunits. Unlike Caspase1,

Caspase5 is not directly responsible for the activation of IL1Beta from the proIL1Beta precursor, but the presence of Caspase5 does appear to enhance the processing of IL1Beta. The in vivo expression of Caspase5 is elevated by Lipopolysaccharide (LPS) and gene expression is also increased by Interferon gamma (IFNg). In vitro studies have shown cleavage of Caspase5 by the serine protease Granzyme B, which plays a major role in Cytotoxic T lymphocyte (CTL) induced apoptosis (1).

### Storage

Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life:** 18 months from date of shipment

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



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## Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting (1)	•			1 - 2ug/ml
IHC - Paraffin			•	
IHC - Frozen			•	
Immunoprecipitation			•	
Flow Cytometry			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by the user.

(1) Detects a band of approximately 48 kDa in Ramos cell lysates. (Predicted precursor MWT 47.8kDa)

## Secondary Antibody Applications

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

## References

1. Wang, S. *et al.* (1996) Identification and characterization of Ich-3, a member of the Interleukin-1beta converting enzyme (ICE)/Ced-3 family and an upstream regulator of ICE. *J. Biol. Chem.* 271: 20580-20587.
2. Lin, X.Y. *et al.* (2000) Expression analysis of the human Caspase-1 subfamily reveals specific regulation of the CASP5 gene by Lipopolysaccharide and Interferon-gamma. *J. Biol. Chem.* 275: 39920-39926.
3. Munday, N.A. *et al.* (1995) Molecular cloning and pro-apoptotic activity of ICeIII and ICeIII, members of the ICE/CED-3 family of cysteine proteases. *J. Biol. Chem.* 270: 15870-15876.
4. Cohen, G.M. (1997) Caspases: the executioners of apoptosis. *Biochem. J.* 326: 1-16.

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