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# CD8B Rabbit pAb

Catalog # AP97425

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | P10966 |
| **Other Accession** | P10966 |
| **Reactivity** | Rat, Human, Mouse |
| **Predicted** | Pig, Chicken, Horse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 23722 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human CD8B |
| **Epitope Specificity** | 51-150/210 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Contains 1 Ig-like V-type (immunoglobulin-like) domain. |
| **SUBUNIT** | In general heterodimer of an alpha and a beta chain linked by two disulfide bonds. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8 antigen acts as a coreceptor with the T-cell receptor on the T lymphocyte to recognize antigens displayed by an antigen presenting cell in the context of class I MHC molecules. The coreceptor functions as either a homodimer composed of two alpha chains or as a heterodimer composed of one alpha and one beta chain. Both alpha and beta chains share significant homology to immunoglobulin variable light chains. This gene encodes the CD8 alpha chain. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]. |

## Additional Information

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| **Gene ID** | 926 |
| **Other Names** | CD8B1; CD8beta; LEU2; LY3; LYT3; Ly-3; P37; Cd8b; Ly-C; Lyt-3; CD8B_HUMAN; CD8B_MOUSE; Lymphocyte antigen 3; T-cell membrane glycoprotein Ly-3; T-cell surface glycoprotein Lyt-3; CD8 subunit beta; CD8 antigen, beta polypeptide 1 (p37); CD8b molecule; T-cell surface glycoprotein CD8 beta chain; Ly-3 homolog (mouse) |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When |

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

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| **Name** | CD8B |
| **Synonyms** | CD8B1 |
| **Function** | Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class I molecule:peptide complex. The antigens presented by class I peptides are derived from cytosolic proteins while class II derived from extracellular proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class I proteins presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. A palmitoylation site in the cytoplasmic tail of CD8B chain contributes to partitioning of CD8 into the plasma membrane lipid rafts where signaling proteins are enriched. Once LCK recruited, it initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of cytotoxic T-lymphocytes (CTLs). Additionally, plays a critical role in thymic selection of CD8+ T- cells. |
| **Cellular Location** | [Isoform 1]: Cell membrane; Single-pass type I membrane protein. Note=Requires the partner CD8A for efficient cell surface expression (PubMed:3145196). The heterodimer CD8A/CD8B localizes to lipid rafts due to CD8B cytoplasmic tail palmitoylation. [Isoform 3]: Secreted. [Isoform 5]: Cell membrane; Single- pass type I membrane protein [Isoform 7]: Secreted. |
| **Tissue Location** | Isoform 1, isoform 3, isoform 5, isoform 6, isoform 7 and isoform 8 are expressed in both thymus and peripheral CD8+ T- cells. Expression of isoform 1 is higher in thymus CD8+ T-cells than in peripheral CD8+ T-cells. Expression of isoform 6 is higher in peripheral CD8+ T-cells than in thymus CD8+ T-cells |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.