

**CD8B1 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP11957b****Specification**

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**CD8B1 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P10966](#)**CD8B1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 926**Other Names**

T-cell surface glycoprotein CD8 beta chain, CD8b, CD8B, CD8B1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CD8B1 Antibody (C-term) Blocking peptide - Protein Information****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

#### **CD8B1 Antibody (C-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

#### **CD8B1 Antibody (C-term) Blocking peptide - Images**

#### **CD8B1 Antibody (C-term) Blocking peptide - Background**

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, acting as a coreceptor, and the T-cell receptor on the T lymphocyte recognize antigens displayed by an antigen presenting cell (APC) in the context of class I MHC molecules. The functional coreceptor is either a homodimer composed of two alpha chains, or 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 beta chain isoforms. Multiple alternatively spliced transcript variants encoding distinct membrane associated or secreted isoforms have been described. A pseudogene, also located on chromosome 2, has been identified.

#### **CD8B1 Antibody (C-term) Blocking peptide - References**

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) ; Chen, M.L., et al. Eur. J. Immunol. 39(12):3423-3435(2009) ; Thakral, D., et al. J. Immunol. 180(11):7431-7442(2008) ; Stove, V., et al. J. Virol. 79(17):11422-11433(2005) ; Moody, A.M., et al. J. Biol. Chem. 278(9):7240-7246(2003)