# Human CellExp™ CD8b, Human Recombinant

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| **CATALOG NO:** | P1244-10 | 10 µg |
| | P1244-50 | 50 µg |
| | P1244-250 | 250 µg |
| | P1244-1000 | 1 mg |

**ALTERNATE NAMES:** T cell surface glycoprotein CD8 beta chain, T lymphocyte surface glycoprotein beta chain, CD8b antigen, CD8 antigen beta polypeptide 1 (p37), CD8 beta, CD8b, CD8B_HUMAN, CD8B1, Leu2, Ly3, LYT3, MGC119115, P37

**SOURCE:** HEK 293 cells (Leu 22- Pro 170)

**PURITY:** > 95% by SDS-PAGE

**MOL. WEIGHT:** This protein is fused with polyhistidine tag at the C-terminus and has a calculated MW of ~18 kDa (22-170 aa). Under reducing conditions the protein migrates as a ~30 kDa (monomer) due to glycosylation.

**FORM:** Lyophilized

**FORMULATION:** Lyophilized from 0.22 µm filtered solution in PBS pH 7.4

**STORAGE CONDITIONS:** Store at -20°C. After reconstitution, aliquot and store at -80°C. Avoid repeated freezing and thawing cycles.

**RECONSTITUTION:** Centrifuge the vial prior to opening. Reconstitute in distilled water.

**DESCRIPTION:** The T-cell surface glycoprotein CD8 beta chain, also called CD8 beta (CD8b), P37 or LEU2 is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. It plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. Being a member of functional coreceptors, CD8 functions either as 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. In T-cells, CD8b functions primarily as a coreceptor for class I MHC molecules. 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, CD8b plays a critical role in thymic selection of $CD8^+$ T-cells. CD8b is thought to play a role in the process of T-cell mediated killing.

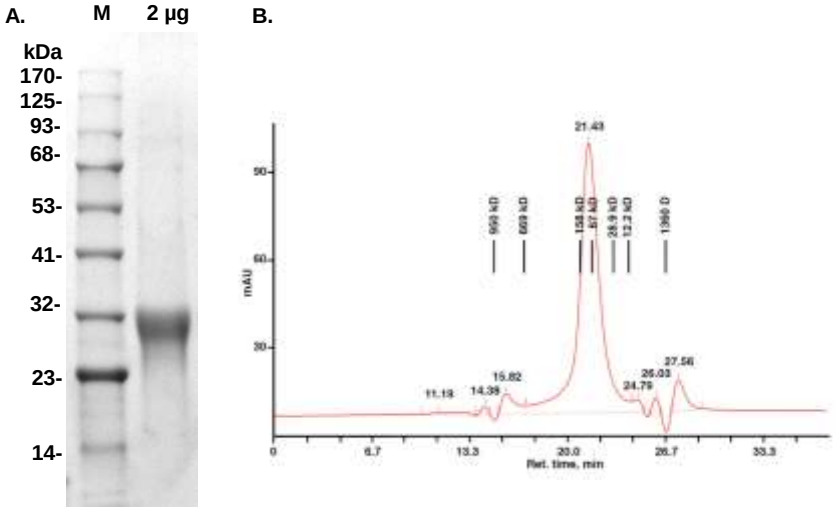


**Fig A. SDS-PAGE (4-20%) of Human Recombinant CD8b (CD8 beta):** 2 ug of recombinant protein loaded under reducing and non-reducing conditions and stained with Coomassie Blue. Under reducing conditions the protein migrates as a ~30 kDa (monomer).

**Fig B. SEC of Human Recombinant CD8b (homodimer in native condition):** Human CD8b protein sample is analyzed using Superose 6 Increase™ 5x150 column in 50 mM sodium phosphate; 0.3 M NaCl pH 7.2 at 100 µl/min and monitoring at 280 nm. CD8 beta forms a homodimer at ~70 kDa at the native condition.

## RELATED PRODUCTS:

- CD8 FITC Monoclonal Antibody (Clone OKT-8) **(Cat. No. 9654)**
- CD8B, human recombinant **(Cat. No. 7320)**
- QuickDetect™ CD8 (Human) ELISA Kit **(Cat. No. K4418)**

***FOR RESEARCH USE ONLY! Not to be used on humans.***