

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived
Lys28-Tyr196, with a C-terminal 10-His tag
Accession # P01731

N-terminal Sequence Analysis Lys28

Structure / Form Noncovalently-linked homodimer

Predicted Molecular Mass 20 kDa

SPECIFICATIONS

SDS-PAGE 32-41 kDa, reducing conditions

Activity Measured by its ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells.
The ED₅₀ for this effect is 1-5 μ g/mL.

Endotoxin Level <0.10 EU per 1 μ g of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 μ m filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

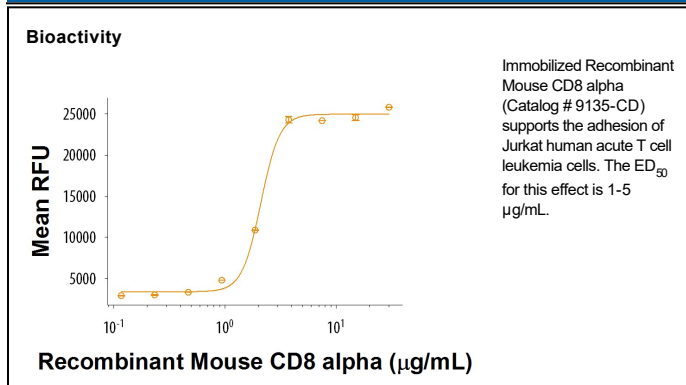
Reconstitution Reconstitute at 500 μ g/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

CD8, also known as Ly-2 or Leu-2, is a heterodimeric glycoprotein (alpha and beta subunits) that functions in conjunction with the T cell receptor in the recognition of MHC class I/peptide complexes (1, 2). CD8 alpha is expressed on double positive (CD4⁺CD8⁺) thymocytes and mature CD8⁺ cytolytic T cells (CTL) (3-5), intraepithelial lymphocytes (IEL) (6), some gamma-delta T cells (7), subsets of thymic and splenic dendritic cells (DC) (8), and peritoneal mast cells (9). It can form disulfide linked homodimers or heterodimers with CD8 β (10). Thymic CD8⁺ DC express primarily $\alpha\beta$ heterodimers, while splenic CD8⁺ DC primarily express $\alpha\alpha$ homodimers (8). CD8 α ⁺ DC can present viral antigenic peptides in complex with MHC I and prime CTL responses (11). The approximately 35 kDa mature mouse CD8 α consists of a 169 amino acid (aa) extracellular domain (ECD) with one Ig-like domain, a 21 aa transmembrane segment, and a 30 aa cytoplasmic domain (12). Within the ECD, mouse CD8 α shares 49% and 64% aa sequence identity with human and rat CD8 α , respectively.

References:

1. Laugel, B. *et al.* (2011) *J. Leukoc. Biol.* **90**:1089.
2. Cole, D.K. *et al.* (2012) *Immunology* **137**:139.
3. Germain, R.N. (2002) *Nat. Rev. Immunol.* **2**:309.
4. Ledbetter, J.A. *et al.* (1980) *J. Exp. Med.* **152**:280.
5. Nakayama, K. *et al.* (1994) *Science* **263**:1131.
6. Wang, J. and J.R. Klein (1994) *Science* **265**:1860.
7. MacDonald, H.R. *et al.* (1990) *Eur. J. Immunol.* **20**:927.
8. Vremec, D. *et al.* (1992) *J. Exp. Med.* **176**:47.
9. Lin, T.-J. *et al.* (1998) *J. Immunol.* **161**:6265.
10. Snow, P.M. and C. Terhorst (1983) *J. Biol. Chem.* **258**:14675.
11. Belz, G.T. *et al.* (2004) *J. Immunol.* **172**:1996.
12. Nakauchi, H. *et al.* (1985) *Proc. Natl. Acad. Sci. USA* **82**:5126.