InnoCyto Inc.
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Technical Data Sheet

Biotinylated Human CD8α Protein (C-His-Avi)

Catalog Number: 803803, 803804
Size: 25 ug, 100 ug
Target Name: CD8A, CD8, Leu2, MAL, p32
Regulatory Status: RUO

Product Details

Application: ELISA, BLI
Format: Liquid, Biotinylated
Expression Host: CHO
Species: Human
Sources: Recombinant Human CD8? protein (Ser22-Asp182) with C-terminus His-Avi tag is expressed in CHO cells. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number: P01732
Molecular Weight: The protein has a predicted molecular weight of 21 kDa. Under DTT-reducing conditions, it migrates at approximately 25-30 kDa on SDS-PAGE prior to conjugation.
Affinity Tag: C-His-Avi
Purity: >95% based on SDS-PAGE under reducing condition
Formulation: 1xPBS buffer, pH7.4, 0.22 µm filtered
Endotoxin level: Not tested
Protein Concentration: 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.
Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at <= –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

Background Information

CD8a is a 32–34 kD type I glycoprotein and a member of the immunoglobulin superfamily, expressed on most thymocytes, subsets of peripheral T cells, and NK cells. It forms either homodimers (CD8a/a) or heterodimers (CD8a/b) with CD8b. CD8 functions as a co-receptor for MHC class I-restricted T cell receptors, enhancing antigen recognition and T cell activation. It also plays a role in thymic differentiation. The extracellular IgSF domain of CD8a binds the ?3 domain of MHC class I, while the cytoplasmic CXCP motif interacts with the tyrosine kinase p56 Lck to initiate signal transduction. In NK cells, CD8a homodimers support cytotoxic function and memory formation.