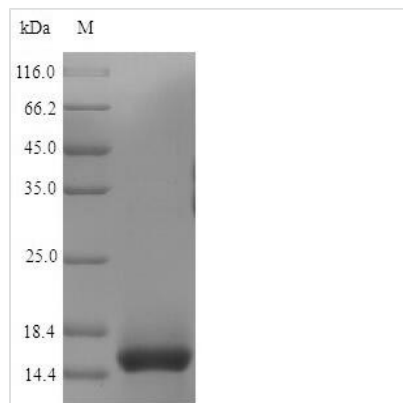


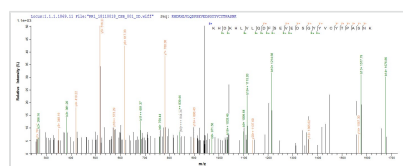


Recombinant Mouse T-cell surface glycoprotein CD3 epsilon chain (Cd3e), partial

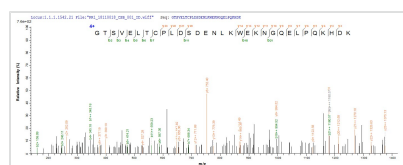
Product Code	CSB-YP004931MO
Relevance	The CD3 complex mediates signal transduction, resulting in T cell activation and proliferation. Required for normal immune responses.
Abbreviation	Recombinant Mouse Cd3e protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P22646
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	DAENIEYKVSISGTSVELTCPLDSDENLKWEKNGQELPQKHDKHLVLQDFSEV EDSGYYVCYTPASNKNTYLYLKARVCEYCVEVD
Research Area	Immunology
Source	Yeast
Target Names	Cd3e
Protein Names	Alternative name(s):T-cell surface antigen T3/Leu-4 epsilon chainCD_antigen: CD3e
Expression Region	23-108aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	11.9 kDa
Protein Length	Extracellular Domain
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of Yeast host and target protein, the LC-MS/MS Analysis result of CSB-YP004931MO could indicate that this peptide derived from Yeast-expressed Mus musculus (Mouse) Cd3e.



Based on the SEQUEST from database of Yeast host and target protein, the LC-MS/MS Analysis result of CSB-YP004931MO could indicate that this peptide derived from Yeast-expressed Mus musculus (Mouse) Cd3e.

Description

To achieve the expression of the recombinant mouse Cd3e protein in yeast cells, a DNA fragment encoding the mouse Cd3e protein (23-108aa) is inserted into a plasmid vector along with the N-terminal 6xHis-tag gene, which is then transferred to yeast cells. After screening positive cells, they are cultured and induced to create the Cd3e protein. The recombinant mouse Cd3e protein is purified from the cell lysate through affinity purification. The purity of the obtained recombinant mouse Cd3e protein is greater than 90%, measured by SDS-PAGE.

CD3E encodes the CD3- ϵ polypeptide, which, together with other CD3 chains and T-cell receptor heterodimers, forms the CD3 complex essential for T-cell function [1][3]. The CD3 complex is involved in signal transduction upon T-cell receptor activation [6]. CD3E is the only CD3 chain that efficiently interacts with Lck, a lymphocyte-specific protein tyrosine kinase, through ionic interactions [1]. CD3E deficiency is associated with severe combined immunodeficiency (SCID) characterized by a T(-)B(+)NK(+) phenotype [2].

Variations in surface CD3E levels among tissue-resident T cells influence the reshaping of T-cell compositions in different organs [4]. Furthermore, CD3E has been identified as a specific marker for tumor-reactive CD4⁺ T cells [5]. It has been found that CD3E immunotoxins can selectively deplete CD3E (high) T cells while sparing CD62L (low) Tregs, leading to a reshaping of organ-specific T-cell compositions [7].

References:

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Shelf Life

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Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.