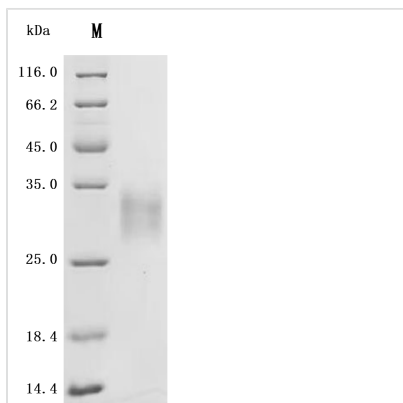


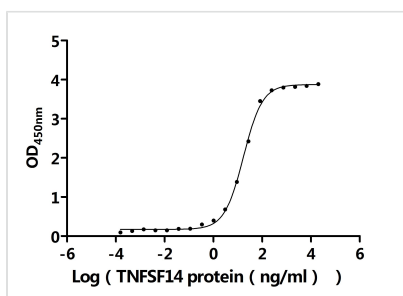


Recombinant Mouse Tumor necrosis factor receptor superfamily member 3 (Ltbr), Partial (Active)

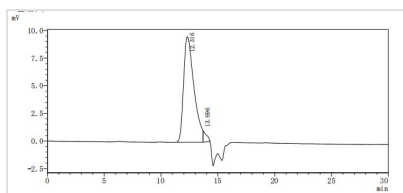
Product Code	CSB-MP013227MO
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P50284
Form	Lyophilized powder
Storage Buffer	Lyophilized from a 0.2 µm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Mouse Ltbr at 2 µg/ml can bind human TNFSF14 (CSB-MP023991HUJ7-B), the EC50 is 15.43-18.78 ng/ml.
Purity	Greater than 95% as determined by SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Sequence	QLVPPYRIENQTCWDQDKEYYEPMHVCCSRCPPGEFVFAVCSRSQDTVCK TCPHNSYNEHWNHLSTCQLCRPCDIVLGFEEVAPCTSDRKAECRCQPGMSC VYLDNECVHCEEERLVLCQPGTEAEVTDEIMDTDVNCVPCKPGHFQNTSSPR ARCQPHTRCEIQGLVEAAPGTSYSDTICKNPPEPGAMLL
Source	Mammalian cell
Target Names	Ltbr
Expression Region	31-223aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 10xHis-tagged
Mol. Weight	23.1kDa
Protein Length	Partial
Image	



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



Activity
 Measured by its binding ability in a functional ELISA. Immobilized Mouse Ltbr at 2 µg/ml can bind human TNFSF14 (CSB-MP023991HUj7-B), the EC₅₀ is 15.43-18.78 ng/ml.



The purity of Ltbr was greater than 95% as determined by SEC-HPLC

Description

The recombinant mouse LTBR protein is a biologically active molecule generated in mammalian cells, ensuring accurate folding and post-translational modifications. It includes the amino acids 31 to 223 of mouse LTBR and carries a C-terminal 10xHis tag to support efficient purification and downstream applications. This recombinant LTBR protein is of high quality, with purity levels exceeding 95% as confirmed by both SDS-PAGE and SEC-HPLC analyses. Endotoxin levels are strictly controlled, remaining below 1.0 EU/µg through LAL testing. Functional validation in a binding ELISA demonstrates that immobilized LTBR at 2 µg/mL specifically interacts with human TNFSF14 (CSB-MP023991HUj7-B), yielding an EC₅₀ between 15.43 and 18.78 ng/mL. These features confirm its suitability for studies focused on lymphotoxin signaling, receptor-ligand interactions, and immunological research.

The LTBR plays crucial roles in various biological processes related to immune responses, lymphoid organ development, and maintenance of structural integrity in secondary lymphoid tissues. In mice, LTBR signaling is essential for the homeostatic function of high endothelial venules (HEVs), which are critical for lymphocyte trafficking and lymph node (LN) maturity. LTBR signaling influences the differentiation and function of endothelial cells, which are integral to forming LNs and maintaining their architecture [1][2].

Research demonstrates that LTBR is necessary for maintaining follicular



reticular networks, which protect the structural integrity of LNs and the splenic marginal zone [3][4]. The expression of LTBR on stromal cells also plays a critical role in the organogenesis of LNs, as it facilitates interactions between different cell types necessary for the development and functionality of these immune structures [5]. For instance, absence or blockage of LTBR leads to significant defects in the formation and function of LNs, revealing its necessity for effective immune responses [6][7].

In addition to its role in LNs, LTBR is implicated in various inflammatory diseases. Its signaling pathway has been associated with proinflammatory roles in conditions such as rheumatoid arthritis and other autoimmune diseases [3][8]. Furthermore, LTBR contributes to the host response against intracellular pathogens; mice deficient in LTBR show increased susceptibility to infections from pathogens like *Mycobacterium tuberculosis* [6][7]. This indicates the receptor's involvement not only in lymphoid architecture but also in immune surveillance.

Moreover, studies have highlighted the interaction of LTBR with T-cell subsets, affecting their effector functions and maturation processes. LTBR signaling is known to enhance the effector capabilities of T cells through its ligand LTβ, thereby playing a critical role in T-cell biology, particularly in modulating responses during autoimmunity and infections [9][10].

References:

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Endotoxin

Less than 1.0 EU/ug as determined by LAL method.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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.