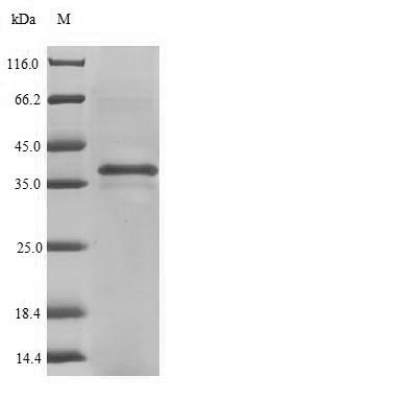
Recombinant Mouse Beta-tectorin (Tectb)

Product Code	CSB-CF023371MO
Relevance	One of the major non-collagenous components of the tectorial membrane (By similarity). The tectorial membrane is an extracellular matrix of the inner ear that covers the neuroepithelium of the cochlea and contacts the stereocilia bundles of specialized sensory hair cells. Sound induces movement of these hair cells relative to the tectorial membrane, deflects the stereocilia and leads to fluctuations in hair-cell membrane potential, transducing sound into electrical signals.
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.	O08524
Product Type	Transmembrane Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	KSCTPNKADVILVFCYPKTIITKIPECPYGWEVHQLALGGLCYNGVHEGGYYQF VIPDLSPKNKSYCGTQSEYKPPIYHFYSHIVSNDSTVIVKNQPVNYSFSCTYHS TYLVNQAAFDQRVATVHVKNGSMGTFESQLSLNFYTNAKFSTKKEAPFVLETS EIGSDLFAGVEAKGLSVRFKVVLNSCWATPSADFMYPLQWQLINKGCPTDETV LVHENGKDHRATFQFNAFRFQNIPKLSKVWLHCETFICDSEKLSCPVNCDKRK RMLRDQTGGVLVVELSLRSRA
Lead Time	Delivery time may differ from different purchasing way or location, please kindly consult your local distributors for specific delivery time.
Research Area	others
Source	in vitro E.coli expression system
Gene Names	Tectb
Expression Region	18-305aa
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	36.5kDa
Protein Description	Full Length of Mature Protein
Image	



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

Description

The cDNA fragment encoding 18-305aa of Mouse Beta-tectorin/Tectb was fused with an N-terminal 6xHis-tag and then expressed in vitro E.coli expression system. The product obtained is the Recombinant full-length of mature Mouse Tectb protein. Its purity was determined by using SDS-PAGE and reached up to 90%. On the reducing SDS-PAGE gel, there presented a molecular mass band of about 38 kDa. The slightly higher result was attributed to glycosylation. This recombinant Tectb protein may be used for specific antibody production or on the studies of the tectorial membrane (TM).

Tectb is a non-collagenous glycoprotein localized to the TM. It is exclusively highly expressed in the inner ear. The absence of Tecb impairs TM's core structure and significantly alters the cochlear function. Remarkable sensitivity and exquisite frequency selectivity are hallmarks of mammalian hearing. Roozbeh Ghaffari etc. demonstrated that Tectb mutation-mediated the reduction of the spatial extent and propagation velocity of TM traveling waves is probably responsible for all the hearing abnormalities related to the mutation. The deletion of the tectb gene in the mouse model showed reduced sensitivity and sharper frequency selectivity.

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.