

## Product Data Sheet

## **TECTB** Protein, Human (HEK293, His)

Cat. No.:	HY-P77225
Synonyms:	Beta-tectorin; TECTB
Species:	Human
Source:	HEK293
Accession:	Q96PL2/NP_478129.1 (K18-R304)
Gene ID:	6975
Molecular Weight:	Approximately 33.9 kDa.

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION	
Background	TECTB Protein stands as one of the principal non-collagenous constituents within the tectorial membrane, an extracellular matrix situated in the inner ear that envelops the neuroepithelium of the cochlea and makes contact with the stereociliar bundles of specialized sensory hair cells. In response to sound stimuli, causing movement of these hair cells relative to the tectorial membrane, the stereocilia deflect, resulting in fluctuations in the membrane potential of hair cells. This process serves as a mechanism for the transduction of sound into electrical signals. TECTB may exhibit the formation of homomer filaments through self-association or heteromeric filaments when associated with alpha-tectorin. Additionally, it interacts with CEACAM16, further contributing to its functional role in the intricate architecture and sensory function of the tectoriar membrane.

## Caution: Product has not been fully validated for medical applications. For research use only.

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