

## Product Data Sheet

## TMEM106B Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P77854
Synonyms:	Transmembrane protein 106B; Tmem106b
Species:	Mouse
Source:	HEK293
Accession:	Q80X71 (P119-Q275)
Gene ID:	71900
Molecular Weight:	65-68 kDa

PROPERTIES	
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Appearance	Lyophilized powder.
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	In neurons, the TMEM106B protein assumes a multifaceted role, participating in the transport of late endosomes/lysosomes and potentially influencing dendrite morphogenesis and maintenance by regulating lysosomal trafficking. It may act as a molecular brake for retrograde transport of late endosomes/lysosomes, possibly through its interaction with MAP6. Specifically in motoneurons, TMEM106B is implicated in mediating the axonal transport of lysosomes and axonal sorting at the initial segment. The exact directionality of its impact on the transport of moving lysosomes in neurites and its significance in lysosomal sorting within axons or dendrites remain unclear. Additionally, TMEM106B may play a role in the
	regulation of lysosomal size and responsiveness to stress in neurons, and it is essential for proper lysosomal acidification. The protein can form homomers and interacts with MAP6, vacuolar-type ATPase subunit ATP6AP1, AP2M1, CLTC, and TMEM106C, further highlighting its diverse molecular interactions in cellular processes.

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

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