

TM4SF2/TSPAN7 Protein, Rat (HEK293, His)

Cat. No.:	HY-P76677
Synonyms:	Tetraspanin-7; Tspan-7; CD231; Mxs1; Tm4sf2
Species:	Rat
Source:	HEK293
Accession:	ABX10436 (R108-M208)
Gene ID:	363447
Molecular Weight:	Approximately 18-28 kDa

PROPERTIES

AA Sequence	<p>R H E I K D T F L R T Y T D A M Q N Y N G K D E R S R A V D H V Q R S L S C C G</p> <p>V Q N Y T N W S S S P Y F L E H G I P P S C C M N E T D C N P L D L H N L T V A</p> <p>A T K V N Q K G C Y D L V T S F M E T N M</p>
Biological Activity	When Recombinant Rat TSPAN7 Protein is immobilized at 2 µg/mL (100 µL/well) can bind Anti-TSPAN7 Antibody. The ED ₅₀ for this effect is 173.6 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ 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	<p>TM4SF2/TSPAN7 Protein regulates the transport of α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptors, participates in synaptic transmission, neuronal morphogenesis, and DCs and osteoblasts morphogenesis. M4SF2/TSPAN7 Protein participates in the spinal maturation of cultured hippocampal neurons through direct interaction with PICK1^[1].</p> <p>Overexpression of TM4SF2/TSPAN7 protein promotes the formation of filopodia and dendritic spines in embryonic rat hippocampal neuronal cultures. Silencing of TM4SF2/TSPAN7 protein reduces head size and spine stability as well as AMPA</p>
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receptor currents.^[2]

TM4SF2/TSPAN7 protein promotes the epithelial-mesenchymal transition (EMT) process by reducing the expression of E-cadherin and vimentin, thereby promoting the proliferation and migration of non-small cell lung cancer (NSCLC) cells^[3]

TM4SF2/TSPAN7 Protein induces apoptosis and cell cycle arrest in bladder cancer cell lines. TM4SF2/TSPAN7 Protein inhibits the growth of bladder cancer cells by activating Bax, cleaved Caspase-3 and PTEN and inactivating Bcl-2, p-PI3K and p-AKT^[4].

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

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