ELAVL4 Protein, Human (His-SUMO)

Cat. No.:	HY-P72180
Synonyms:	ELAV embryonic lethal abnormal vision Drosophila; like 4; ELAV L4; ELAV like 4; ELAV like protein 4; ELAV-like protein 4; ELAV4_HUMAN; Elavl4; Embryonic lethal abnormal vision Drosophila homolog of like 4; Hu antigen D; Hu-antigen D; HuD; Paraneoplastic encephalomyelitis antigen HuD; PNEM
Species:	Human
Source:	E. coli
Accession:	P26378 (M1-S380)
Gene ID:	1996
Molecular Weight:	Approximately 61.8 kDa

PROPERTIES

AA Sequence	M V M I I S T M E P Q V S N G P T S N T S N G P S S N N R N C P S P M Q T G A T T D D S K T N L I V N Y L P Q N M T Q E E F R S L F G S I G E I E S C K L V R D K I T G Q S L G Y G F V N Y I D P K D A E K A I N T L N G L R L Q T K T I K V S Y A R P S S A S I R D A N L Y V S G L P K T M T Q K E L E Q L F S Q Y G R I I T S R I L V D Q V T G V S R G V G F I R F D K R I E A E E A I K G L N G Q K P S G A T E P I T V K F A N N P S Q K S S Q A L L S Q L Y Q S P N R R Y P G P L H H Q A Q R F R L D N L L N M A Y G V K R L M S G P V P P S A C P P R F S P I T I D G M T S L V G M N I P G H T G T G W C I F V Y N L S P D S D E S V L W Q L F G P F G A V N N V K V I R D F N T N K C K G F G F V T M T N Y D E A A M A I A S L N G Y R L G D R V L Q V S F K T N K A H K S
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm sterile filtered PBS, 6% Trehalose, pH 7.4.
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_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	The ELAVL4 protein is an RNA-binding factor extensively involved in post-transcriptional regulation of mRNAs, influencing mRNA stability, alternative splicing, and translation. By binding to AU-rich element (ARE) sequences in the 3' untranslated

region (UTR) of target mRNAs, including GAP43, VEGF, FOS, CDKN1A, and ACHE, ELAVL4 contributes to the stabilization and protection of these transcripts from decay. It decreases mRNA deadenylation by binding to the mRNA 3'UTR and also interacts with the polyadenylated (poly(A)) tail in the 3'UTR, enhancing mRNA binding affinity. ELAVL4 predominantly operates in neuron-specific RNA processing, stabilizing mRNAs related to neuronal proteins and contributing to neural progenitor cell differentiation, nervous system development, and learning and memory mechanisms. Additionally, it plays a role in the negative regulation of proliferative activity in neuronal stem cells, promoting neuronal differentiation. ELAVL4's impact extends to neurite outgrowth, dendritic arbor establishment, and maturation, influencing neocortical and hippocampal circuitry function. It forms part of the TAU mRNP complex, associates with the EIF4F cap-binding complex, and interacts with various proteins, including SMN, MAP1 light chain LC1, and LC2, highlighting its diverse roles in RNA regulation and neuronal processes.

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