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Anti-ELAVL4 Picoband Antibody

Catalog # ABO12384

Product Information

Application	WB, IHC-P
Primary Accession	P26378
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for ELAV-like protein 4(ELAVL4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1996
Other Names	ELAV-like protein 4, Hu-antigen D, HuD, Paraneoplastic encephalomyelitis antigen HuD, ELAVL4, HUD, PNEM
Calculated MW	42398
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Tissue Specificity	Brain.
Source	Eukaryota
Protein Name	ELAV-like protein 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ELAVL4 (8-45aa MEPQVSNGPTSNTSNGPSSNNRNCPSPMQTGATTDDSK), different from the related mouse and rat sequences by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated

freezing and thawing.

Protein Information

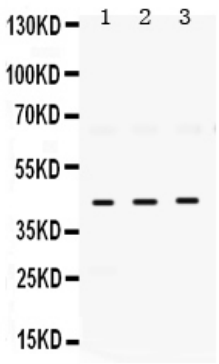
Name	ELAVL4
Synonyms	HUD, PNEM
Function	RNA-binding protein that is involved in the post- transcriptional regulation of mRNAs (PubMed:10710437, PubMed:12034726, PubMed:12468554, PubMed:17035636, PubMed:17234598, PubMed:7898713). Plays a role in the regulation of mRNA stability, alternative splicing and translation (PubMed:10710437, PubMed:12034726, PubMed:12468554, PubMed:17035636, PubMed:17234598, PubMed:7898713). Binds to AU-rich element (ARE) sequences in the 3' untranslated region (UTR) of target mRNAs, including GAP43, VEGF, FOS, CDKN1A and ACHE mRNA (PubMed:10710437, PubMed:12034726, PubMed:12468554, PubMed:7898713). Many of the target mRNAs are coding for RNA-binding proteins, transcription factors and proteins involved in RNA processing and/or neuronal development and function (By similarity). By binding to the mRNA 3'UTR, decreases mRNA deadenylation and thereby contributes to the stabilization of mRNA molecules and their protection from decay (PubMed:12034726). Also binds to the polyadenylated (poly(A)) tail in the 3'UTR of mRNA, thereby increasing its affinity for mRNA binding (PubMed:12034726). Mainly plays a role in neuron-specific RNA processing by stabilization of mRNAs such as GAP43, ACHE and mRNAs of other neuronal proteins, thereby contributing to the differentiation of neural progenitor cells, nervous system development, learning and memory mechanisms (PubMed:12034726, PubMed:12468554, PubMed:17234598, PubMed:18218628). Involved in the negative regulation of the proliferative activity of neuronal stem cells and in the positive regulation of neuronal differentiation of neural progenitor cells (By similarity). Promotes neuronal differentiation of neural stem/progenitor cells in the adult subventricular zone of the hippocampus by binding to and stabilizing SATB1 mRNA (By similarity). Binds and stabilizes MSI1 mRNA in neural stem cells (By similarity). Exhibits increased binding to ACHE mRNA during neuronal differentiation, thereby stabilizing ACHE mRNA and enhancing its expression (PubMed:12468554, PubMed:17234598). Protects CDKN1A mRNA from decay by binding to its 3'-UTR (By similarity). May bind to APP and BACE1 mRNAS and the BACE1AS lncRNA and enhance their stabilization (PubMed:24857657). Plays a role in neurite outgrowth and in the establishment and maturation of dendritic arbors, thereby contributing to neocortical and hippocampal circuitry function (By similarity). Stabilizes GAP43 mRNA and protects it from decay during postembryonic development in the brain (PubMed:12034726). By promoting the stabilization of GAP43 mRNA, plays a role in NGF-mediated neurite outgrowth (By similarity). Binds to BDNF long 3'UTR mRNA, thereby leading to its stabilization and increased dendritic translation after activation of PKC (By similarity). By increasing translation of BDNF after nerve injury, may contribute to nerve regeneration (By similarity). Acts as a stabilizing factor by binding to the 3'UTR of NOVA1 mRNA, thereby increasing its translation and enhancing its functional activity in neuron-specific splicing (PubMed:18218628). Stimulates translation of mRNA in a poly(A)- and cap-dependent manner, possibly by associating with the EIF4F cap-binding complex (By similarity). May also negatively regulate translation by binding to the 5'UTR of Ins2 mRNA, thereby repressing its translation (By similarity). Upon glucose stimulation, Ins2 mRNA is released from ELAVL4 and translational inhibition is abolished (By similarity). Also plays a role in the regulation of alternative splicing (PubMed:17035636). May regulate alternative splicing of CALCA pre-mRNA into Calcitonin and Calcitonin gene-related peptide 1 (CGRP) by competing with splicing regulator TIAR for

	binding to U-rich intronic sequences of CALCA pre- mRNA (PubMed:17035636).
Cellular Location	Cytoplasm. Perikaryon {ECO:0000250|UniProtKB:O09032}. Cell projection, dendrite {ECO:0000250|UniProtKB:O09032}. Cell projection, axon {ECO:0000250|UniProtKB:Q61701}. Cell projection, growth cone {ECO:0000250|UniProtKB:Q61701}. Note=Co-localizes with ribosomal RNA in polysomes. {ECO:0000250|UniProtKB:O09032}
Tissue Location	Expressed in pancreatic beta cells (at protein level) (PubMed:22387028). Expressed in the brain (PubMed:14702039, PubMed:1655278).

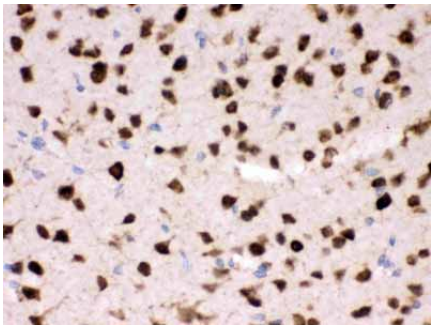
Background

HuD otherwise known as ELAV-like protein 4 or PNEM is a protein that in humans is encoded by the ELAVL4 gene. This human gene is located at 1p34 by in situ hybridization. The HuD/ELAVL4 protein is an RNA-binding protein. ELAVL4 has specificity for 3-prime uridylate-rich untranslated regions of growth factor mRNAs. And HuD is expressed only in neurons and it binds to AU-rich element-containing mRNAs. As a result of this interaction the, half-life of the transcript is increased. Also, HuD is important in neurons during brain development and plasticity.

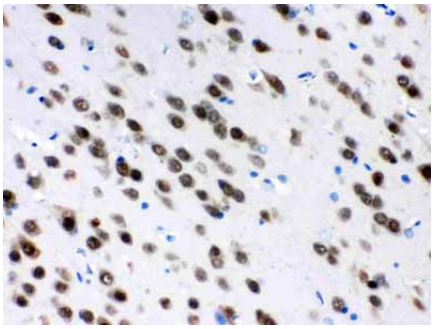
Images



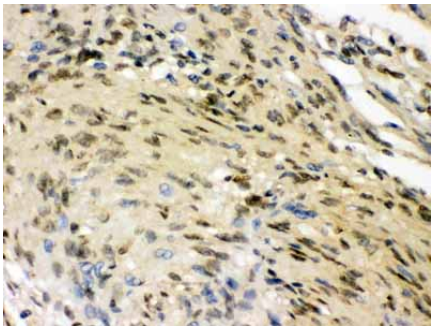
Anti- ELAVL4 Picoband antibody, ABO12384, Western blottingAll lanes: Anti ELAVL4 (ABO12384) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Brain Tissue Lysate at 50ugLane 3: U87 Whole Cell Lysate at 40ugPredicted bind size: 42KDObserved bind size: 42KD



Anti- ELAVL4 Picoband antibody, ABO12384, IHC(P)IHC(P): Mouse Brain Tissue



Anti- ELAVL4 Picoband antibody, ABO12384, IHC(P)IHC(P): Rat Brain Tissue



Anti- ELAVL4 Picoband antibody, ABO12384, IHC(P)IHC(P): Human Meningeoma Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.