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Torsin A Antibody

Rabbit mAb
Catalog # AP90236

Product Information

Application	WB, FC
Primary Accession	O14656
Reactivity	Human
Clonality	Monoclonal
Other Names	TOR1A;DQ2; DYT1; TorsinA;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	37809

Additional Information

Dilution	WB 1:500~1:2000 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Torsin A
Description	The neurological condition Dystonia is associated with sustained muscle contractions and abnormal posturing. TorsinA, torsinB, torp2A and torp3A belong to the family of ATPases associated with cellular activites (AAA+) and mutations in torsinA cause early onset dystonia. TorsinA has been shown to suppress intracellular protein aggregation in C. elegans and possesses chaperon activity. Interestingly, torsinA is highly expressed in dopaminergic neurons and associates with alpha-synuclein in Lewy bodies, which pathologically characterize Parkinson's Disease.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	TOR1A
Synonyms	DQ2, DYT1, TA, TORA
Function	Protein with chaperone functions important for the control of protein folding, processing, stability and localization as well as for the reduction of misfolded protein aggregates. Involved in the regulation of synaptic vesicle recycling, controls STON2 protein stability in collaboration with the COP9 signalosome complex (CSN). In the nucleus, may link the cytoskeleton with the nuclear envelope, this mechanism seems to be crucial for the control of nuclear polarity, cell movement and, specifically in neurons, nuclear envelope integrity. Participates in the cellular trafficking and may regulate the subcellular location of multipass membrane proteins such as the dopamine

transporter SLC6A3, leading to the modulation of dopamine neurotransmission. In the endoplasmic reticulum, plays a role in the quality control of protein folding by increasing clearance of misfolded proteins such as SGCE variants or holding them in an intermediate state for proper refolding. May have a redundant function with TOR1B in non- neural tissues.

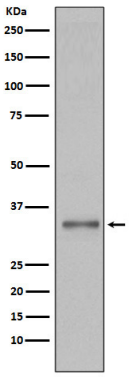
Cellular Location

Endoplasmic reticulum lumen. Nucleus membrane; Peripheral membrane protein. Cell projection, growth cone. Cytoplasmic vesicle membrane. Cytoplasmic vesicle, secretory vesicle. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle. Cytoplasm, cytoskeleton. Note=Upon oxidative stress, redistributes to protusions from the cell surface (By similarity). Peripherally associated with the inner face of the ER membrane, probably mediated by the interaction with TOR1AIP1. The association with nucleus membrane is mediated by the interaction with TOR1AIP2.

Tissue Location

Widely expressed. Highest levels in kidney and liver. In the brain, high levels found in the dopaminergic neurons of the substantia nigra pars compacta, as well as in the neocortex, hippocampus and cerebellum. Also highly expressed in the spinal cord

Images



Western blot analysis of Torsin A expression in 293T cell lysate.

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