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DYT1 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM2084a

Product Information

Application	WB, E
Primary Accession	O14656
Other Accession	NP_000104.1
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	583CT1.1.3
Calculated MW	37809

Additional Information

Gene ID	1861
Other Names	Torsin-1A, Dystonia 1 protein, Torsin ATPase-1A, 364-, Torsin family 1 member A, TOR1A, DQ2, DYT1, TA, TORA
Target/Specificity	Purified His-tagged DYT1 protein(Fragment) was used to produced this monoclonal antibody.
Dilution	WB~~1:500~8000 E~~Use at an assay dependent concentration.
Format	Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DYT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

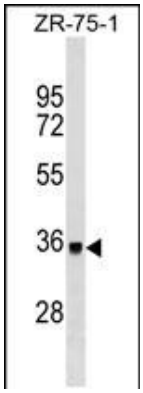
Background

The protein encoded by this gene is a member of the AAA family of adenosine triphosphatases (ATPases), is related to the Clp protease/heat shock family and is expressed prominently in the substantia nigra pars compacta. Mutations in this gene result in the autosomal dominant disorder, torsion dystonia 1. [provided by RefSeq].

References

Sharma, N., et al. Mov. Disord. 25(13):2183-2187(2010)
Kaiser, F.J., et al. Ann. Neurol. 68(4):554-559(2010)
Gavarini, S., et al. Ann. Neurol. 68(4):549-553(2010)
Granata, A., et al. Eur. J. Neurol. 17 SUPPL 1, 81-87 (2010) :
Warner, T.T., et al. Biochem. Soc. Trans. 38(2):452-456(2010)

Images



DYT1 Antibody (Cat. #AM2084a) western blot analysis in ZR-75-1 cell line lysates (35µg/lane).This demonstrates the DYT1 antibody detected the DYT1 protein (arrow).

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