

Rabbit TOR1A Polyclonal Antibody | anti-TOR1A antibody

TOR1A Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326558	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

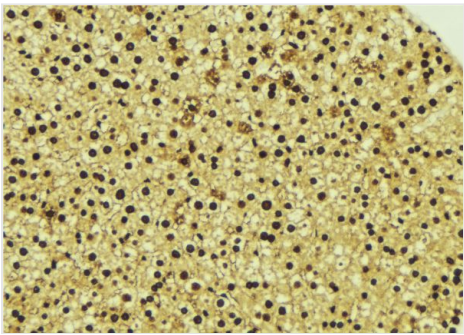
PRODUCT SYNONYMS

TOR1A; Polyclonal Antibody; TOR1A Antibody; DQ2; Dystonia 1; Dystonia 1 protein; Dystonia 1 torsion; Dyt1; TOR1A_HUMAN; Torsin 1A; Torsin A; Torsin family 1 member A; Torsin family 1; member A (torsin A); Torsin-1A; anti-TOR1A antibody

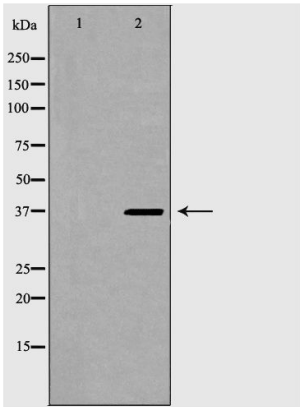
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TOR1A antibody detects endogenous levels of total TOR1A
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	332
Applicable Applications for anti-TOR1A antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TOR1A
Subcellular Location	Endoplasmic Reticulum; Cytoskeleton; Nucleus
Tissue Specificity	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.
Predicted Cross Reactivity	Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Bovine (100%), Horse (89%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (89%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA326558 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts of MCF-7, using TOR1A antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-TOR1A antibody

Description: The neurological condition Dystonia is associated with sustained muscle contractions and abnormal posturing (1). TorsinA, torsinB, torp2A and torp3A belong to the family of ATPases associated with cellular activities (AAA+) and mutations in torsinA cause early onset dystonia (2). TorsinA has been shown to suppress intracellular protein aggregation in *C. elegans* and possesses chaperone activity. Interestingly, torsinA is highly expressed in dopaminergic neurons and associates with alpha-synuclein in Lewy bodies, which pathologically characterize Parkinson's Disease (3-5).

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.

Subunit Structure: Homohexamer. Interacts with TOR1B; the interaction may be specific of neural tissues. Interacts (ATP-bound) with TOR1AIP1 and TOR1AIP2; the interactions induce ATPase activity. Interacts with KLHL14; preferentially when ATP-free. Interacts with KLC1 (via TPR repeats); the interaction associates TOR1A with the kinesin oligomeric complex. Interacts with COPS4; the interaction associates TOR1A with the CSN complex. Interacts with SNAPIN; the interaction is direct and associates SNAPIN with the CSN complex. Interacts with STON2. Interacts (ATP-bound) with SYNE3 (via KASH domain); the interaction is required for SYNE3 nuclear envelope localization. Interacts with VIM; the interaction associates TOR1A with the cytoskeleton. Interacts with PLEC. Interacts (ATP-bound) with SLC6A3; regulates SLC6A3 transport to the plasma membrane.

Post-translational Modifications: N-glycosylated.

Similarity: Belongs to the ClpA/ClpB family. Torsin subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557541
NCBI GeneID	1861
NCBI Accession #	NP_000104.1
NCBI GenBank Nucleotide #	NM_000113.2
UniProt Accession #	O14656; Q53Y64; Q96CA0; B2RB58
Molecular Weight	Observed: 38 kDa Predicted: 38 kDa

NCBI Official Full Name	torsin-1A
NCBI Official Synonym Full Names	torsin family 1 member A
NCBI Official Symbol	TOR1A
NCBI Official Synonym Symbols	DQ2; DYT1
NCBI Protein Information	torsin-1A
UniProt Protein Name	Torsin-1A
UniProt Gene Name	TOR1A
UniProt Synonym Gene Names	DQ2; DYT1; TA; TORA

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/tor1a-antibody-immunohistochemistry-western-blot-elisa/326558>