

## Torsin A

Cat.No. 337-0P; control peptide, 100 µg peptide (lyophilized)

### Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 320 to 332 from human TorsinA (UniProt Id: O14656)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	337 003
Remarks	This control peptide consists of the synthetic peptide (aa 319-332 in human Torsin A) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of peptide needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

Torsins are members of the AAA+ superfamily of ATPases which are associated with a variety of cellular activities and are present in all multicellular organisms. They are chaperone-like proteins, involved in protein trafficking, membrane fusion and participating in secretory processing. Torsins are also involved in neurogenesis, neuronal migration, axon/dendrite development and synaptogenesis. A C-terminal codon deletion in **Torsin A**, also named Torsin 1A, is associated with inherited DYT1 dystonia.

### Selected General References

- Developmental profile of the aberrant dopamine D2 receptor response in striatal cholinergic interneurons in DYT1 dystonia. Sciamanna G, Tassone A, Martella G, Mandolesi G, Puglisi F, Cuomo D, Madeo G, Ponterio G, Standaert DG, Bonsi P, Pisani A, et al. PLoS one (2011) 6(9): e24261.
- A molecular mechanism underlying the neural-specific defect in torsinA mutant mice. Kim CE, Perez A, Perkins G, Ellisman MH, Dauer WT. Proceedings of the National Academy of Sciences of the United States of America (2010) 107(21): 9861-6.
- Earlier onset of motor deficits in mice with double mutations in Dyt1 and Sgce. Yokoi F, Yang G, Li J, DeAndrade MP, Zhou T, Li Y. Journal of biochemistry (2010) 148(4): 459-66.
- The dystonia-associated protein torsinA modulates synaptic vesicle recycling. Granata A, Watson R, Collinson LM, Schiavo G, Warner TT. The Journal of biological chemistry (2008) 283(12): 7568-79.
- TorsinA in PC12 cells: localization in the endoplasmic reticulum and response to stress. Hewett J, Ziefer P, Bergeron D, Naismith T, Boston H, Slater D, Wilbur J, Schuback D, Kamm C, Smith N, Camp S, et al. Journal of neuroscience research (2003) 72(2): 158-68.