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ProductInformation

Anti-Striatin
produced in rabbit, affinity isolated antibody

Catalog Number **S0696**

Product Description

Anti-Striatin is developed in rabbit using a synthetic peptide corresponding to amino acids 378-396 located in the mid region of mouse striatin, conjugated to KLH, as immunogen. This sequence is highly conserved in rat and human striatin (84-89% identity). The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Striatin recognizes mouse and rat striatin, 110 kDa, by immunoblotting. Staining of the striatin band is specifically inhibited with the immunizing peptide.

Striatin is a neuronal, membrane associated protein, 780 amino acids, 110 kDa, originally isolated from rat brain synaptosomes.[1,2] It belongs to a family of Ca^{2+} and calmodulin binding proteins with WD motif repeats, that includes SG2NA and zinedin.[3] Striatin is multimodular and contains at least four protein-protein interaction domains, including a caveolin binding motif, a coiled-coil structure, a Ca^{2+} and calmodulin domain and a large WD domain consisting of a series of eight WD repeats. Striatin also forms a complex with protein phosphatase 2A (PP2A) and has been shown to function as an estrogen receptor α (ERα)-binding protein.[4,5] Striatin functions as a molecular anchor that localizes ERα to the membrane and organizes the ERα-eNOS membrane signaling complex. Cloning of the human striatin homologous gene revealed that is a highly conserved protein (96% identity with rat striatin). Striatin is found in low abundance in the rat brain. It is mostly expressed in neurons of the motor and olfactory structures of the central nervous system, predominantly in the striatum.[6-8] Striatin is almost exclusively expressed in the somatodendritic compartment of neurons, at the exclusion of axons. It is mostly found in dendritic spines, which are postsynaptic compartments of excitatory synapse, and is considered a marker of neuronal polarity. It has been suggested that striatin is an adaptor or transducer protein involved in Ca^{2+} and calmodulin-dependent signaling events within dendritic spines. Down regulation of striatin, which is expressed in a few subsets of neurons, impairs the growth of dendrites as well as locomotor activity.[9]

Reagent

The product is supplied in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~3 mg/ml

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

A working concentration of 1.5-3 µg/ml is determined by immunoblotting, using a whole cell extract of mouse fibroblast NIH3T3 cell line

A working concentration of 3-5 µg/ml is determined by immunoblotting, using a mouse brain and rat brain extract (S1 fraction).

Note: In order to obtain best results and assay sensitivity in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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