

SYNGR3 Antibody

Catalog # ASC11048

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O43761
Other Accession	NP_004200 , 6631112
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	24555
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SYNGR3 antibody can be used for detection of SYNGR3 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	9143
Other Names	Synaptogyrin-3, SYNGR3
Target/Specificity	SYNGR3;
Reconstitution & Storage	SYNGR3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	SYNGR3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SYNGR3 (HGNC:11501)
Function	May play a role in regulated exocytosis. May indirectly regulate the activity of the plasma membrane dopamine transporter SLC6A3 and thereby regulate dopamine transport back from the synaptic cleft into the presynaptic terminal.
Cellular Location	Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250 UniProtKB:Q8R191}; Multi-pass membrane protein. Synapse {ECO:0000250 UniProtKB:Q8R191} Note=Found at the neuromuscular synapses {ECO:0000250 UniProtKB:Q8R191}

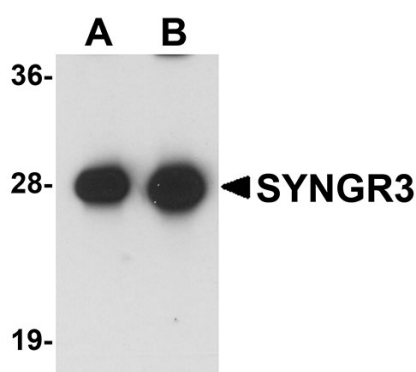
Background

SYNGR3 Antibody: Synaptogyrins comprise a family of tyrosine-phosphorylated membrane proteins with two neuronal (SYNGR1 and SYNGR3) and one ubiquitous (SYNGR2) members. SYNGR1 and -3 are synaptic vesicle proteins, residing in some cases on the same synaptic vesicle, and are thought to be involved in the regulation of neurotransmitter release. SYNGR2, by contrast, is absent from synaptic vesicles. The role and localization of a fourth synaptogyrin, SYNGR4, is unclear. SYNGR3 is predominantly expressed in brain and placenta. SYNGR3 is involved in the positive regulation of dopamine transporter activity and facilitates the physical and functional interactions of the transporter with the dopamine vesicular storage system, allowing a more efficient loading of the vesicles with extracellular dopamine after release.

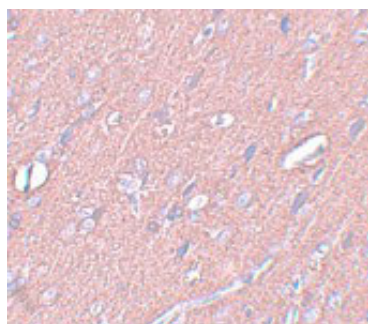
References

Belizaire R, Komanduri C, Wooten K, et al. Characterization of synaptogyrin 3 as a new synaptic vesicle protein. *J. Comp. Neurol.*2004; 470:266-81.
Egaña LA, Cuevas RA, Baust TB, et al. Physical and functional interaction between the dopamine transporter and the synaptic vesicle protein synaptogyrin-3. *J. Neurosci.*2009; 29:4592-604.

Images

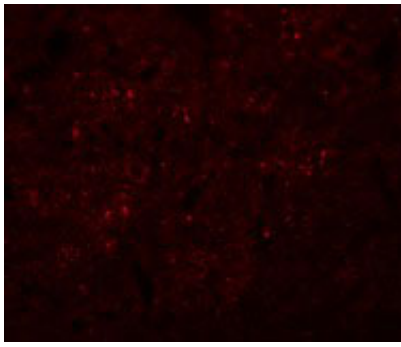


Western blot analysis of SYNGR3 in mouse brain tissue lysate with SYNGR3 antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



Immunohistochemistry of SYNGR3 in rat brain tissue with SYNGR3 antibody at 2.5 $\mu\text{g/mL}$.

Immunofluorescence of SYNGR3 in Rat Brain cells with SYNGR3 antibody at 20 $\mu\text{g/mL}$.



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