

SYNGR1 Antibody

Catalog # ASC11046

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O43759
Other Accession	CAA05322 , 2959866
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	25456
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SYNGR1 antibody can be used for detection of SYNGR1 by Western blot at 1 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	9145
Other Names	Synaptogyrin-1, SYNGR1
Target/Specificity	SYNGR1;
Reconstitution & Storage	SYNGR1 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	SYNGR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SYNGR1 (HGNC:11498)
Function	May play a role in regulated exocytosis. Modulates the localization of synaptophysin/SYP into synaptic-like microvesicles and may therefore play a role in synaptic-like microvesicle formation and/or maturation (By similarity). Involved in the regulation of short- term and long-term synaptic plasticity (By similarity).
Cellular Location	Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250 UniProtKB:Q62876}; Multi-pass membrane protein {ECO:0000250 UniProtKB:Q62876}. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

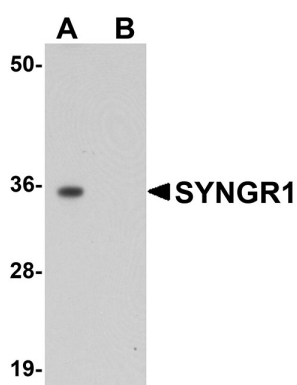
Background

SYNGR1 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. The gene for SYNGR1 is located at chromosome 22q13, a region linked to schizophrenia; however, there is mixed evidence suggesting that mutations in SYNGR1 might be associated with schizophrenia.

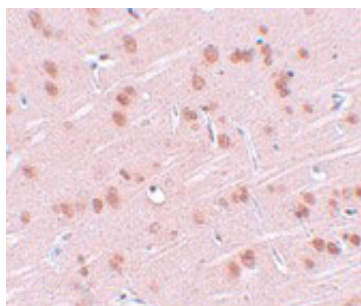
References

- Kedra D, Pan HQ, Seroussi E, et al. Characterization of the human synaptogyrin gene family. *Hum. Genet.* 1998; 103:131-41.
- Ega 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.
- Cheng MC and Chen CH. Identification of rare mutations of synaptogyrin 1 gene in patients with schizophrenia. *J. Psychiatr. Res.* 2007; 41:1027-31.
- Wang Y, Yu L, Zhao T, et al. No association between bipolar disorder and syngr1 or synapsin II polymorphisms in the Han Chinese population. *Psychiatry Res.* 2009; 169:167-8.

Images

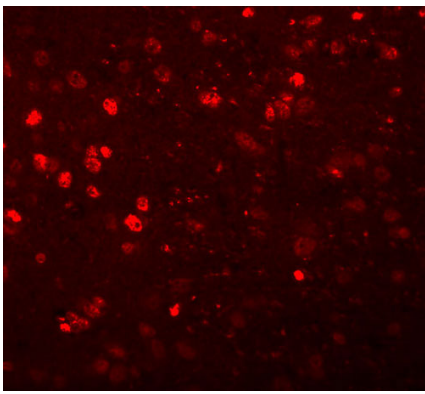


Western blot analysis of SYNGR1 in rat brain tissue lysate with SYNGR1 antibody at 1 μ g/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of SYNGR1 in rat brain tissue with SYNGR1 antibody at 2.5 μ g/mL.

Immunofluorescence of SYNGR1 in rat brain tissue with SYNGR1 antibody at 20 μ g/mL.



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