

SYNGR3 Antibody
Catalog # ASC11048**Specification**

SYNGR3 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	O43761
Other Accession	NP_004200 , 6631112
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	SYNGR3 antibody can be used for detection of SYNGR3 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

SYNGR3 Antibody - Additional Information

Gene ID	9143
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.

SYNGR3 Antibody - 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}

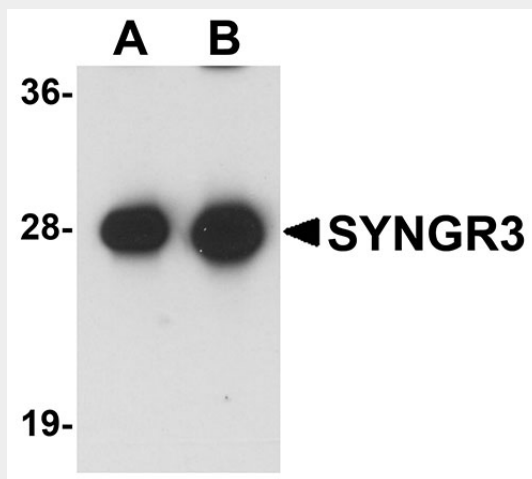
Tissue Location

Expressed in brain and placenta.

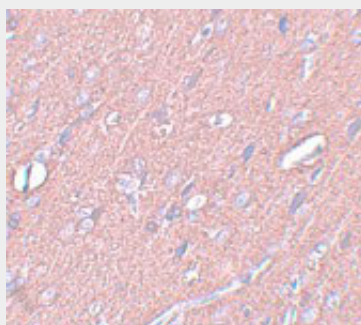
SYNGR3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

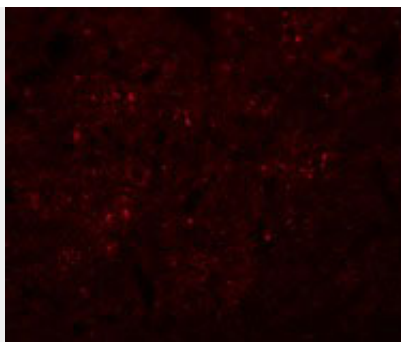
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SYNGR3 Antibody - 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 µg/mL.

SYNGR3 Antibody - 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.

SYNGR3 Antibody - 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.