10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

# SYNGR1 Antibody
**Catalog # ASC11046**

## Specification

### SYNGR1 Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC, IF** |
| Primary Accession | O43759 |
| Other Accession | CAA05322, 2959866 |
| Reactivity | **Human, Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **IgG** |
| Application Notes | **SYNGR1 antibody can be used for detection of SYNGR1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.** |

### SYNGR1 Antibody - Additional Information

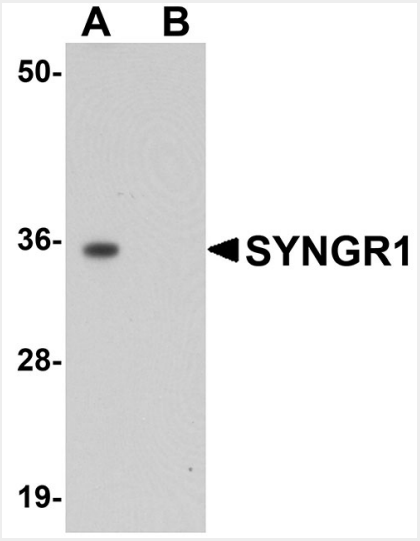
| | |
|---|---|
| Gene ID | **9145** |

**Target/Specificity**
SYNGR1;

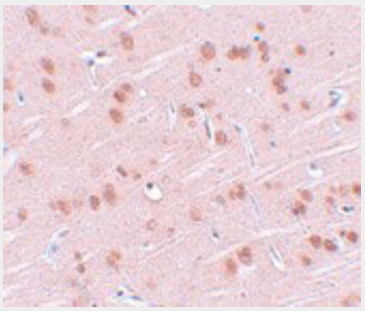
**Reconstitution & Storage**
SYNGR1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**
SYNGR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### SYNGR1 Antibody - Protein Information




Western blot analysis of SYNGR1 in rat brain tissue lysate with SYNGR1 antibody at 1 µg/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 µg/mL.

**Name** SYNGR1 (HGNC:11498)

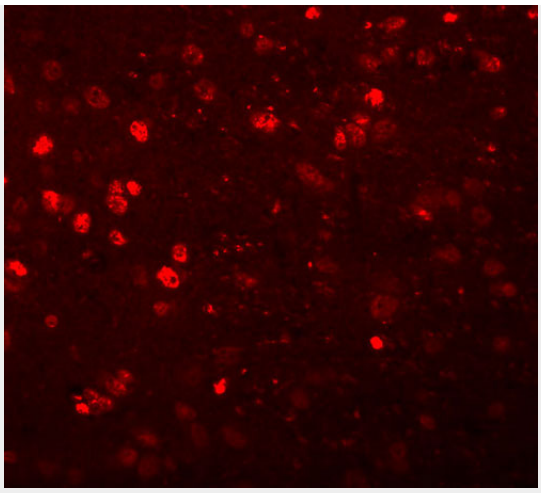
**Function**
May play a role in regulated exocytosis. Modulates the localization of synaptophysin/SYP into synaptic-like microvesicles and may therefore play a role in synaptic-like microvesicle formation and/or maturation (By similarity). Involved in the regulation of short- term and long-term synaptic 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

## SYNGR1 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 Cytomety
- Cell Culture



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

## SYNGR1 Antibody - 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 SYNGR1is located at chromosome 22q13, a region linked to schizophrenia; however, there is mixed evidence suggesting that mutations in SYNGR1 might be associated with schizophrenia.

## SYNGR1 Antibody - References

Kedra D, Pan HQ, Seroussi E, et al. Characterization of the human synaptogyrin gene family. Hum. Genet.1998; 103:131-41.
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.
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.