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SYNGR1 Antibody

#20874



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Entrez-Gene ID #9145
UniProt ID #O43759

New 07/19

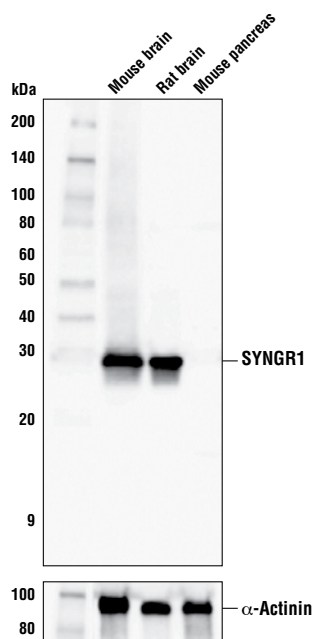
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Applications W Endogenous	Species Cross-Reactivity* H, M, R	Molecular Wt. 28 kDa	Source Rabbit**
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Background: Synaptogyrin, or SYNGR, are a family of tyrosine-phosphorylated proteins, including neuronal SYNGR1 and SYNGR3 that are found in synaptic vesicles and contribute to the proper synapse function. Synaptogyrin-2 (SYNGR2) expresses ubiquitously and it is not only associated with synaptic vesicles, but also plays an important role in exocytosis processes (1,3). In addition, it has been shown that SYNGRs modulate calcium currents in excitable cells during potassium chloride-dependent exocytosis (3). SYNGR3 and SYNGR1 specifically localize in synaptic vesicles. SYNGR1 modulates synaptic vesicle function similar to SYNGR3 (2,3). SYNGR1 and SYNGR3 contribute to the neurotransmitter release in neurons by interactions with the GABA and VGLUT transporters in primary neurons and in *C. elegans* (4-6). SYNGRs are associated with disease including Schizophrenia (7,8) and Alzheimer's disease (9,10).

Specificity/Sensitivity: SYNGR1 Antibody recognizes endogenous levels of total synaptogyrin-1 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr214 of human synaptogyrin-1 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from mouse and rat brain, and mouse pancreas using SYNGR1 Antibody (upper), and α -Actinin (D6A8) Rabbit mAb #6487 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C . Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Kedra, D. et al. (1998) *Hum Genet* 103, 131-41.
- (2) Janz, R. et al. (1999) *Neuron* 24, 687-700.
- (3) Sugita, S. et al. (1999) *J Biol Chem* 274, 18893-901.
- (4) Belizaire, R. et al. (2004) *J Comp Neurol* 470, 266-81.
- (5) Bragina, L. et al. (2010) *Neuroscience* 165, 934-43.
- (6) Abraham, C. et al. (2011) *Neuroscience* 190, 75-88.
- (7) Verma, R. et al. (2005) *J Hum Genet* 50, 635-40.
- (8) Cheng, M.C. and Chen, C.H. (2007) *J Psychiatr Res* 41, 1027-31.
- (9) Liu, C. et al. (2016) *J Biol Chem* 291, 8173-88.
- (10) McInnes, J. et al. (2018) *Neuron* 97, 823-835.e8.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween[®]20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig S—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected **Species** enclosed in parentheses are predicted to react based on 100% homology.