

#12218 Store at -20°C

SHANK2 Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB, IP	Reactivity: M R	Sensitivity: Endogenous	MW (kDa): 165	Source: Rabbit	UniProt ID: #Q9UPX8-4	Entrez-Gene Id: 22941
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Product Usage
Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

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

Specificity / Sensitivity

SHANK2 Antibody recognizes endogenous levels of total SHANK2 protein.

Species predicted to
react based on 100%
sequence homology:

Human, Monkey, Bovine

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val537 of human SHANK2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The SHANK family proteins, also known as proline-rich synapse-associated proteins, consist of SHANK1, SHANK2, and SHANK3. SHANK proteins act as scaffolds at the neuronal post-synaptic density (PSD) (1), where they play a critical role in PSD assembly of excitatory synapses during development (2). While recruitment of SHANK proteins to the synapse is independent of their interaction with Homer (3), proper synaptic targeting of SHANK1 is mediated by interactions between its PDZ domain and PSD proteins (4). At the synapse, SHANK proteins interact with NMDA receptors and metabotropic glutamate receptor complexes (5). Research studies have proposed the involvement of SHANK proteins in autism and neurodegenerative diseases (1).

Background References

1. Grubucker, A.M. et al. (2011) *Trends Cell Biol* 21, 594-603.
2. Boeckers, T.M. et al. (1999) *J Neurosci* 19, 6506-18.
3. Boeckers, T.M. et al. (2005) *J Neurochem* 92, 519-24.
4. Sala, C. et al. (2001) *Neuron* 31, 115-30.
5. Boeckers, T.M. et al. (2002) *J Neurochem* 81, 903-10.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting IP: Immunoprecipitation

Cross-Reactivity Key

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster
X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse
GP: Guinea Pig Rab: rabbit All: all species expected

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