

Store at
-20C
#64555**SHANK3 (D5K6R) Rabbit mAb**

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Applications: W, IP, IF-F	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 220	Source/Isotype: Rabbit IgG	UniProt ID: #Q9BYB0	Entrez-Gene Id: 85358
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:50
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #84654.

Specificity/Sensitivity

SHANK3 (D5K6R) Rabbit mAb recognizes endogenous levels of total SHANK3 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile1210 of human SHANK3 protein.

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. Grabrucker, 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 BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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