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EB11637 - Goat Anti-Nsg1 / Neep21 Antibody

Size: 100µg specific antibody in 200µl

Target Protein

Principal Names: brain neuron cytoplasmic protein 1/2, brain specific mRNA b, Bsmrb, Neep21, neuron specific gene family member 1, neuron-specific protein family member 1, Nsg1, PEP1
Official Symbol: Nsg1
Accession Number(s): NP_077042.2
Human GeneID(s): 27065
Non-Human GeneID(s): 18196 (mouse), 25247 (rat)

Immunogen

Peptide with sequence EKGTKQPLLEDGFD-C, from the N Terminus of the protein sequence according to NP_077042.2.

Please note the peptide is available for sale.

Purification and Storage

Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Aliquot and store at -20°C. Minimize freezing and thawing.

Applications Tested

Peptide ELISA: antibody detection limit dilution 1:128000.
Western blot: Approx 22kDa band observed in Mouse fetal Brain lysates (calculated MW of 20.9kDa according to NP_035072.2). Recommended concentration: 0.1-0.3µg/ml. Primary incubation was 1 hour.

Immunocytochemistry: Primary DIV9 cells from Hippocampus E18 Rat embryos, stained for neuronal marker MAP2 in blue and for glial marker GFAP in green showed exclusive labelling of EB11637 (red) in the neurons only. Recommended concentration: 1-5µg/ml.

Species Reactivity

Tested: Mouse, Rat
Expected from sequence similarity: Human, Mouse, Rat, Cow

Specific References

This antibody has been successfully used in ICC on Human:
Praveen Chander, Matthew J. Kennedy, Bettina Winckler and Jason P. Weick
Neuron-Specific Gene 2 (NSG2) encodes an AMPA receptor interacting protein that modulates excitatory neurotransmission
eNeuro 4 January
2019, ENEURO.0292-18.2018; DOI:https://doi.org/10.1523/ENEURO.0292-18.2018
PMID: 30680309

This antibody has been successfully used in ICC on Rat:
Chan Choo Yap, Laura Digilio, Lloyd McMahon & Bettina Winckler
The endosomal neuronal proteins Nsg1/NEEP21 and Nsg2/P19 are itinerant, not resident proteins of dendritic endosomes.
Scientific Reports, 7: 10481, DOI: 10.1038/s41598-017-07667-x (2017)

PMID: 28874679

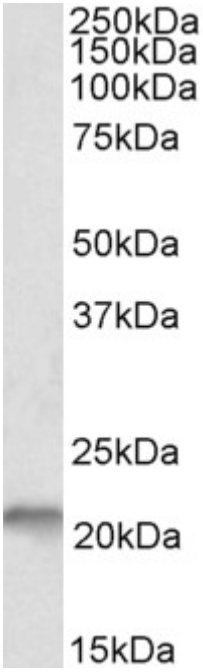
This antibody has been successfully used in ICC on Rat:

Digilio L, Yap CC, Winckler B

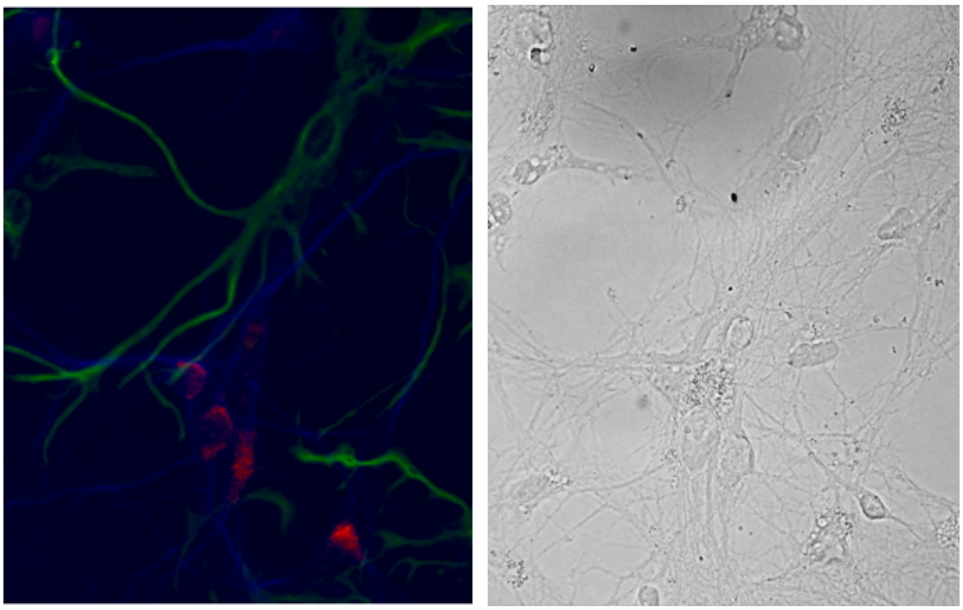
Neurons in Rat Cultures: Preponderance of Single- and Double-Positive Cells, and Cell Type-Specific Expression of Neuron-Specific Gene Family Members, Nsg-1 (NEEP21) and Nsg-2 (P19).

PLoS One. 2015 Oct 14;10(10):e0140010.

PMID: 26465886



EB11637 (0.1µg/ml) staining of fetal Mouse Brain lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB11637 (3µg/ml) staining of primary DIV9 cells from Hippocampus E18 Rat embryos showed exclusive localization (red, Alexa 568) within the neurons (MAP2 staining in blue, Alexa 647) and not in the glia (GFAP staining in green, Alexa 488).Right panel shows the same cells in phase contrast. Data obtained from Dr C.C. Yap, University of Virginia Medical School, USA.