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**Research Use Only. Not for  
diagnostic or therapeutic use.**

## 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

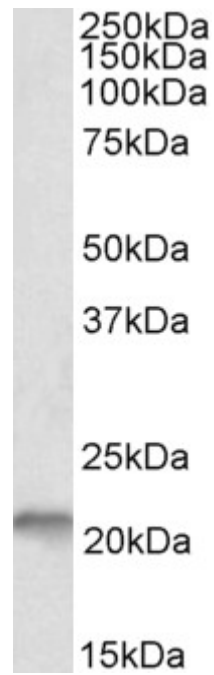
**This antibody has been successfully used in ICC on Rat:**

Digilio L, Yap CC, Winckler B

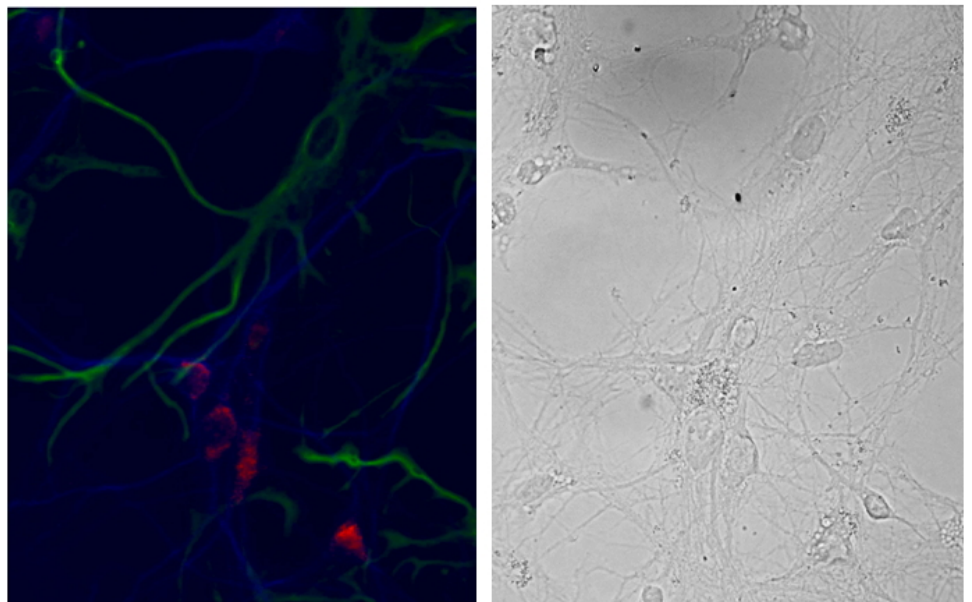
Neurons in Rat Cultures: Preponderance of Single- and Double-Positive Cells, and Cell Type-Specific Expression of Neuron-Specific Gene Family Members, Nsg-1 (NEEP21) and Nsg-2 (P19).

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

PMID: 26465886



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



EB11637 (3 $\mu$ g/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.