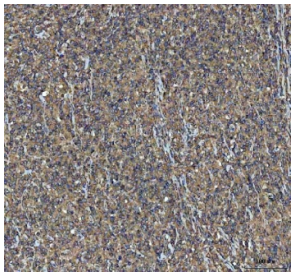
NEEP21 Antibody / Endosomal Recycling Protein Antibody (RQ8428)

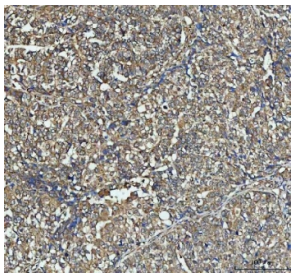
Catalog No.	Formulation	Size
RQ8428	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

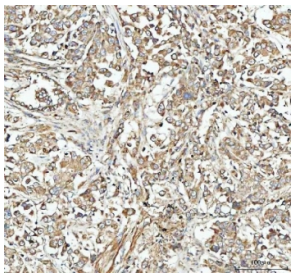
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P42857
RRID	AB_3753509
Localization	Cytoplasm
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This NEEP21 Antibody / Endosomal Recycling Protein Antibody is available for research use only.



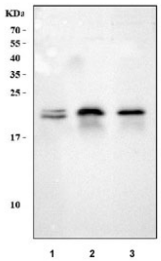
NEEP21 Antibody Human Large B-Cell Lymphoma IHC. Immunohistochemistry was performed on FFPE human large B-cell lymphoma tissue using NEEP21 Antibody. Heat-induced epitope retrieval was carried out in pH 8 EDTA buffer prior to antibody incubation. Bound antibody was detected using an HRP-conjugated secondary antibody with DAB chromogen. Diffuse cytoplasmic staining is observed throughout the neoplastic lymphoid cells, demonstrating endogenous NEEP21 expression within the tumor tissue. These results demonstrate that this Endosomal Recycling Protein Antibody is suitable for immunohistochemical detection of NEEP21 in formalin-fixed, paraffin-embedded human large B-cell lymphoma tissue.



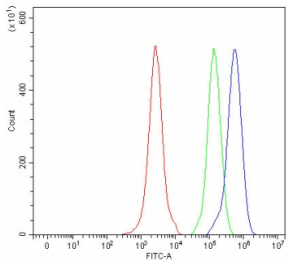
NEEP21 Antibody Human Bladder Urothelial Carcinoma IHC. Immunohistochemistry was performed on FFPE human bladder urothelial carcinoma tissue using NEEP21 Antibody. Heat-induced epitope retrieval was carried out in pH 8 EDTA buffer prior to antibody incubation. Bound antibody was detected using an HRP-conjugated secondary antibody with DAB chromogen. Moderate to strong cytoplasmic staining is observed throughout the neoplastic urothelial cells, consistent with endogenous expression of NEEP21, a protein involved in endosomal recycling and intracellular membrane trafficking. These results demonstrate that this Endosomal Recycling Protein Antibody is suitable for immunohistochemical detection of NEEP21 in formalin-fixed, paraffin-embedded human bladder urothelial carcinoma tissue.



NEEP21 Antibody Human Lung Cancer IHC. Immunohistochemistry was performed on FFPE human lung cancer tissue using NEEP21 Antibody. Heat-induced epitope retrieval was carried out in pH 8 EDTA buffer prior to antibody incubation. Bound antibody was detected using an HRP-conjugated secondary antibody with DAB chromogen. Moderate to strong cytoplasmic staining is observed throughout the neoplastic epithelial cells, consistent with endogenous expression of NEEP21, a protein that regulates endosomal recycling and intracellular membrane trafficking. These results demonstrate that this Endosomal Recycling Protein Antibody is suitable for immunohistochemical detection of NEEP21 in formalin-fixed, paraffin-embedded human lung cancer tissue.



NEEP21 Antibody Human, Rat and Mouse Brain WB. Western blot analysis was performed using NEEP21 Antibody. Lane 1: human SH-SY5Y cell lysate; lane 2: rat brain tissue lysate; lane 3: mouse brain tissue lysate. A specific immunoreactive band is detected at approximately 21 kDa in all three samples, consistent with the expected molecular weight of NEEP21. The blot demonstrates robust cross-species detection with minimal background, supporting reliable recognition of endogenous NEEP21 in neuronal cell and brain tissue lysates. These results demonstrate that this Endosomal Recycling Protein Antibody is suitable for Western blot detection of endogenous NEEP21 in human, rat, and mouse neural samples.



NEEP21 Antibody Human JK Cell FACS. Flow cytometry was performed on fixed and permeabilized human JK cells using NEEP21 Antibody at 1 ug/1Ã—10^6 cells. Cells were blocked with normal goat serum prior to antibody incubation. Red: unstained cells; green: isotype control; blue: NEEP21 Antibody. A distinct rightward shift of the NEEP21-stained population relative to the isotype control demonstrates specific intracellular detection of endogenous NEEP21 expression in human JK cells. These results demonstrate that this Endosomal Recycling Protein Antibody is suitable for flow cytometric analysis of endogenous NEEP21 following fixation and permeabilization.

Description

NEEP21 Antibody recognizes NEEP21 (Neuron Specific Gene Family Member 1, NSG1), a neuron-enriched membrane protein that plays an essential role in endosomal recycling and intracellular membrane trafficking. NEEP21 localizes predominantly to early and recycling endosomes within neurons, where it regulates the sorting and recycling of membrane proteins required for neuronal development, synaptic plasticity, and receptor homeostasis. Through its participation in endosomal trafficking pathways, NEEP21 helps maintain the proper distribution of receptors and other cargo proteins throughout dendrites and axons. NSJ Bioreagents supplies NEEP21 Antibody for reliable detection of this important neuronal trafficking protein across a variety of research applications.

NEEP21 is highly expressed within the central nervous system and contributes to the recycling of multiple neuronal surface receptors, including proteins involved in excitatory synaptic transmission. By directing cargo through recycling endosomes instead of degradative lysosomal pathways, NEEP21 helps preserve receptor availability at the plasma membrane and supports dynamic regulation of synaptic signaling. Its function is particularly important during neuronal

differentiation, dendritic maturation, and activity-dependent membrane remodeling. Consequently, NEEP21 Antibody is widely used to investigate endosomal trafficking, receptor recycling, membrane transport, and neuronal cell biology.

Disruption of NEEP21-mediated trafficking has been linked to impaired neuronal development, altered synaptic function, and defective intracellular transport. Because abnormalities in endosomal trafficking contribute to numerous neurological and neurodegenerative disorders, NEEP21 has become an important research target for understanding mechanisms of neuronal protein sorting and membrane homeostasis. Investigators also study NSG1 to better understand receptor recycling pathways that influence synaptic plasticity, neuronal signaling, and maintenance of healthy neural networks.

A NEEP21 Antibody is a valuable reagent for investigating endosomal recycling, intracellular membrane trafficking, receptor transport, and neuronal development. By enabling reliable detection of NSG1, a NEEP21 Antibody supports research into synaptic biology, neuronal protein sorting, neurodegeneration, and the molecular mechanisms that regulate endosomal recycling and membrane homeostasis.

Explore additional antibodies involved in neuronal signaling and nervous system function on our Neuroscience Antibodies page.

Application Notes

Optimal dilution of the NEEP21 Antibody / Endosomal Recycling Protein Antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (M1-Q176) was used as the immunogen for the NEEP21 antibody.

Storage

After reconstitution, the NEEP21 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

NSG1 antibody, Neuron Specific Gene Family Member 1 antibody, Neuron Specific Gene 1 antibody, Neuronal Vesicle Trafficking Protein antibody, Endosomal Protein NEEP21 antibody, Brain Specific Endosomal Protein antibody

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