

ZNRF1 (mouse) Antibody (internal region)

Peptide-affinity purified goat antibody Catalog # AF3796a

Specification

ZNRF1 (mouse) Antibody (internal region) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB, IHC, E <u>Q8ND25</u> <u>NP_573469.1</u>, <u>NP_001162093.1</u>, <u>84937</u>, <u>170737</u> (mouse), <u>690769 (rat)</u> Mouse Human, Rat, Pig, Dog Goat Polyclonal 0.5 mg/ml IgG 23783

ZNRF1 (mouse) Antibody (internal region) - Additional Information

Gene ID 84937

Other Names E3 ubiquitin-protein ligase ZNRF1, 6.3.2.-, Nerve injury-induced gene 283 protein, Zinc/RING finger protein 1, ZNRF1, NIN283

Dilution WB~~1:1000 IHC~~1:100~500 E~~N/A

Format 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ZNRF1 (mouse) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

ZNRF1 (mouse) Antibody (internal region) - Protein Information

Name ZNRF1

Synonyms NIN283



Function

E3 ubiquitin-protein ligase that plays a role in different processes including cell differentiation, receptor recycling or regulation of inflammation (PubMed:28593998, PubMed:33996800, PubMed:37158982). Mediates the ubiquitination of AKT1 and GLUL, thereby playing a role in neuron cells differentiation. Plays a role in the establishment and maintenance of neuronal transmission and plasticity. Regulates Schwann cells differentiation by mediating ubiquitination of GLUL. Promotes neurodegeneration by mediating 'Lys-48'-linked polyubiquitination and subsequent degradation of AKT1 in axons: degradation of AKT1 prevents AKT1-mediated phosphorylation of GSK3B, leading to GSK3B activation and phosphorylation of DPYSL2/CRMP2 followed by destabilization of microtubule assembly in axons. Ubiquitinates the Na(+)/K(+) ATPase alpha-1 subunit/ATP1A1 and thereby influences its endocytosis and/or degradation (PubMed:22797923). Controls ligand-induced EGFR signaling via mediating receptor ubiquitination and recruitment of the ESCRT machinery (PubMed:<a href="http://www.uniprot.org/citations/33996800"

target="_blank">33996800). Acts as a negative feedback mechanism controlling TLR3 trafficking by mediating TLR3 'Lys-63'-linked polyubiquitination to reduce type I IFN production (PubMed:37158982). Modulates inflammation by promoting caveolin-1/CAV1 ubiquitination and degradation to regulate TLR4-activated immune response (PubMed:28593998).

Cellular Location

Endosome. Lysosome. Membrane; Peripheral membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Peripheral membrane protein Note=Associated with synaptic vesicle membranes in neurons

Tissue Location

Expressed primarily in the nervous system, with expression higher in developing brain relative to adult. Expressed at low levels in testis and thymus.

ZNRF1 (mouse) Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

ZNRF1 (mouse) Antibody (internal region) - Images





N2a overexpressing Mouse Znrf1 (mock transfection in first lane) and probed with AF3796a (1 μ g/ml), also staining of Mouse Brain lysates (Embryo E14 and adult cerebellum). Primary incubation was 1 hour. Detected by chemiluminescence.



AF3796a (10 μ g/ml) staining of paraffin embedded Mouse Cerebral Cortex. Microwaved antigen retrieval with citrate buffer pH 6, streptavidfine-Alexa 488-staining after biotinylated anti-goat secondary. The Neurofilament M was labeled by Millipore AB1987 (1:100).

ZNRF1 (mouse) Antibody (internal region) - Background

This antibody is expected to recognize reported isoforms a and b (NP_573469.1; NP_001162093.1). Reported variants represent identical protein: NP_001162092.1, NP_573469.1

ZNRF1 (mouse) Antibody (internal region) - References

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