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Gliomedin Rabbit pAb

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Catalog # AP94049

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q6ZMI3
Reactivity	Human, Mouse, Rat
Predicted	Dog, Pig, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58957
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Gliomedin/COLM
Epitope Specificity	365-460/551
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Single-pass type II membrane protein. Note=Localizes to the nodes of Ranvier.
SIMILARITY	Contains 2 collagen-like domains. Contains 1 olfactomedin-like domain.
SUBUNIT	Interacts with NFASC/neurofascin and NRCAM.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Gliomedin is a 551 amino acid protein encoded by the human gene GLDN. Gliomedin is thought to play a role in the formation of the nodes of Ranvier along myelinated axons. Accumulation of Na+ channels at the nodes of Ranvier is a prerequisite for saltatory conduction. In peripheral nerves, clustering of these channels along the axolemma is regulated by myelinating Schwann cells through an unknown mechanism. Gliomedin is a glial ligand for Neurofascin and NrCAM, two axonal immunoglobulin cell adhesion molecules that are associated with Na+ channels at the nodes of Ranvier. Gliomedin is expressed by myelinating Schwann cells and accumulates at the edges of each myelin segment during development, where it aligns with the forming nodes. Gliomedin is a single-pass type II membrane protein localized to the nodes of Ranvier and is specifically expressed in spinal cord, brain, placenta and sciatic nerve. It is more abundant in peripheral than central nervous system.

Additional Information

Gene ID	342035
Other Names	Gliomedin, Gliomedin shedded ectodomain, GLDN, COLM
Target/Specificity	Specifically expressed in spinal cord, brain, placenta and sciatic nerve. More abundant in peripheral than central nervous system.

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

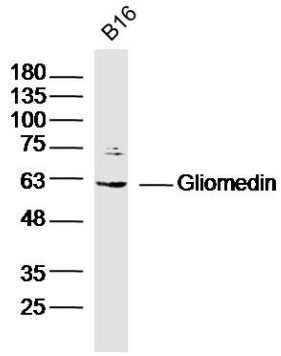
Name	GLDN
Synonyms	COLM
Function	Ligand for NRCAM and NFASC/neurofascin that plays a role in the formation and maintenance of the nodes of Ranvier on myelinated axons. Mediates interaction between Schwann cell microvilli and axons via its interactions with NRCAM and NFASC. Nodes of Ranvier contain clustered sodium channels that are crucial for the saltatory propagation of action potentials along myelinated axons. During development, nodes of Ranvier are formed by the fusion of two heminodes. Required for normal clustering of sodium channels at heminodes; not required for the formation of mature nodes with normal sodium channel clusters. Required, together with NRCAM, for maintaining NFASC and sodium channel clusters at mature nodes of Ranvier.
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q80WL1, ECO:0000269|PubMed:27616481}; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q80WL1}. Cell projection, axon {ECO:0000250|UniProtKB:Q80WL1}. Note=Detected at the nodes of Ranvier Detected at immature heminodes. {ECO:0000250|UniProtKB:Q80WL1}
Tissue Location	Specifically expressed in spinal cord, brain, placenta and sciatic nerve. More abundant in peripheral than central nervous system.

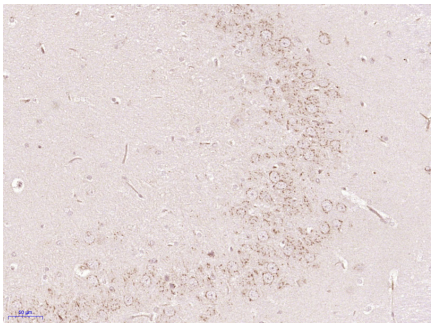
Background

Gliomedin is a 551 amino acid protein encoded by the human gene GLDN. Gliomedin is thought to play a role in the formation of the nodes of Ranvier along myelinated axons. Accumulation of Na+ channels at the nodes of Ranvier is a prerequisite for saltatory conduction. In peripheral nerves, clustering of these channels along the axolemma is regulated by myelinating Schwann cells through an unknown mechanism. Gliomedin is a glial ligand for Neurofascin and NrCAM, two axonal immunoglobulin cell adhesion molecules that are associated with Na+ channels at the nodes of Ranvier. Gliomedin is expressed by myelinating Schwann cells and accumulates at the edges of each myelin segment during development, where it aligns with the forming nodes. Gliomedin is a single-pass type II membrane protein localized to the nodes of Ranvier and is specifically expressed in spinal cord, brain, placenta and sciatic nerve. It is more abundant in peripheral than central nervous system.

Images

Sample:
B16(Mouse) Cell Lysate at 30 ug
Primary: Anti-Gliomedin (AP94049) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 59 kD
Observed band size: 59 kD





Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Gliomedin) Polyclonal Antibody, Unconjugated (AP94049) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.