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GlyR alpha 1 + 2 + 3 Rabbit pAb

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Catalog # AP94037

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P23415
Reactivity	Human, Mouse, Rat
Predicted	Chicken, Dog, Pig, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52624
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GlyR alpha 1
Epitope Specificity	101-200/449
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 junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein.
SIMILARITY	Belongs to the ligand-gated ion channel (TC 1.A.9) family. Glycine receptor (TC 1.A.9.3) subfamily. GLRA1 sub-subfamily.
SUBUNIT	Pentamer composed of alpha and beta subunits.
DISEASE	Defects in GLRA1 are the cause of hyperekplexia, hereditary, type 1 (HKPX1) [MIM:149400]. A neurologic disorder characterized by muscular rigidity of central nervous system origin, particularly in the neonatal period, and by an exaggerated startle response to unexpected acoustic or tactile stimuli.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Glycine receptors are members of the ligand-gated ion channel superfamily, which mediate fast inhibitory neurotransmission. The receptors are pentameric membrane proteins which form chloride channels. Binding of glycine to its receptor produces an increase in chloride conductance and membrane hyperpolarisation. Four genes encoding glycine receptor alpha subunits have been identified, together with a single beta polypeptide. Each subunit consists of a large extracellular N-terminal region, four transmembrane domains, and a large cytoplasmic domain.

Additional Information

Gene ID	2741
Other Names	Glycine receptor subunit alpha-1, Glycine receptor 48 kDa subunit, Glycine receptor strychnine-binding subunit, GLRA1
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.

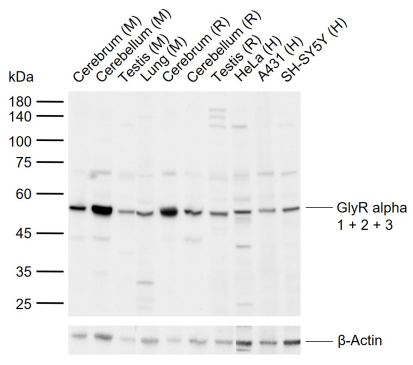
Protein Information

Name	GLRA1
Function	Subunit of heteromeric glycine-gated chloride channels (PubMed: 14551753, PubMed:23994010, PubMed:25730860, PubMed:37821459). Plays an important role in the down-regulation of neuronal excitability (PubMed:8298642, PubMed:9009272). Contributes to the generation of inhibitory postsynaptic currents (PubMed:25445488). Channel activity is potentiated by ethanol (PubMed:25973519). Potentiation of channel activity by intoxicating levels of ethanol contribute to the sedative effects of ethanol (By similarity).
Cellular Location	Postsynaptic cell membrane {ECO:0000250|UniProtKB:Q64018}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q64018}. Synapse {ECO:0000250|UniProtKB:Q64018} Perikaryon {ECO:0000250|UniProtKB:Q64018}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q64018}. Cell membrane; Multi-pass membrane protein

Background

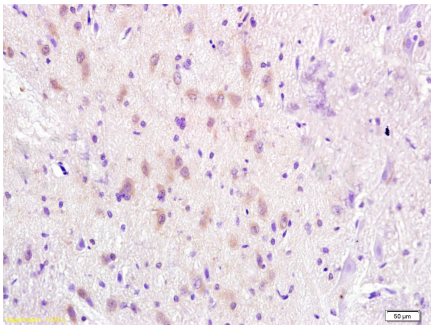
Glycine receptors are members of the ligand-gated ion channel superfamily, which mediate fast inhibitory neurotransmission. The receptors are pentameric membrane proteins which form chloride channels. Binding of glycine to its receptor produces an increase in chloride conductance and membrane hyperpolarisation. Four genes encoding glycine receptor alpha subunits have been identified, together with a single beta polypeptide. Each subunit consists of a large extracellular N-terminal region, four transmembrane domains, and a large cytoplasmic domain.

Images



Sample:
Lane 1: Mouse Cerebrum tissue lysates
Lane 2: Mouse Cerebellum tissue lysates
Lane 3: Mouse Testis tissue lysates
Lane 4: Mouse Lung tissue lysates
Lane 5: Rat Cerebrum tissue lysates
Lane 6: Rat Cerebellum tissue lysates
Lane 7: Rat Testis tissue lysates
Lane 8: Human HeLa cell lysates
Lane 9: Human A431 cell lysates
Lane 10: Human SH-SY5Y cell lysates
Primary: Anti-GlyR alpha 1 + 2 + 3 (AP94037) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 49 kDa
Observed band size: 53 kDa

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;



Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-GlyR alpha 1/2/3 Polyclonal Antibody, Unconjugated(AP94037) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining