

GlyR β (C-20): sc-17285

BACKGROUND

In the central nervous system (CNS), glycine-mediated inhibitory neurotransmission is essential to voluntary motor control and reflex responses. Glycine binds to glycine receptors (GlyR) in the postsynaptic neuronal membranes. GlyR, γ -aminobutyric acid, Serotonin and acetylcholine comprise an evolutionally conserved superfamily of ligand-gated ion channels. The pentameric subunit structure of GlyR consists of two types of glycosylated membrane proteins, α 1 through α 4 and β , and an associated peripheral membrane protein, which combine to form a chloride-selective ion channel. In humans, the composition of the pentamer changes from α 2 subunits in the fetal CNS to α 1 and β subunits in the adult CNS. Fast potentiation of GlyR by intracellular Ca^{2+} in the brainstem and midbrain indicate an important role for Ca^{2+} in modulation of glycinergic synapses. The genes encoding human GlyR α 1, α 2, α 3 and β subunits map to chromosomes 5q33.1, Xp22.2, 4q34.1 and 4q32.1, respectively.

CHROMOSOMAL LOCATION

Genetic locus: GLRB (human) mapping to 4q32.1; Glrb (mouse) mapping to 3 E3.

SOURCE

GlyR β (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GlyR β of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17285 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

GlyR β (C-20) is recommended for detection of GlyR β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GlyR β (C-20) is also recommended for detection of GlyR β in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GlyR β siRNA (h): sc-42471, GlyR β siRNA (m): sc-42472, GlyR β shRNA Plasmid (h): sc-42471-SH, GlyR β shRNA Plasmid (m): sc-42472-SH, GlyR β shRNA (h) Lentiviral Particles: sc-42471-V and GlyR β shRNA (m) Lentiviral Particles: sc-42472-V.

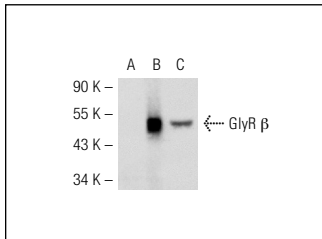
Molecular Weight of GlyR β : 58 kDa.

Positive Controls: GlyR β (h): 293T Lysate: sc-115142 or TT whole cell lysate: sc-364195.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-204. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GlyR β (C-20): sc-17285. Western blot analysis of GlyR β expression in non-transfected 293T: sc-117752 (A), human GlyR β transfected 293T: sc-115142 (B) and TT (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Laterza, O.F., et al. 2006. Identification of novel brain biomarkers. *Clin. Chem.* 52: 1713-1721.
2. Liu, Q. and Wong-Riley, M.T. 2013. Postnatal development of glycine receptor subunits α 1, α 2, α 3, and β immunoreactivity in multiple brain stem respiratory-related nuclear groups of the rat. *Brain Res.* 1538: 1-16.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **GlyR β (D-8): sc-365819** or **GlyR β (G-1): sc-390156**, our highly recommended monoclonal alternatives to GlyR β (C-20).