**BACKGROUND**

Glutamate receptors mediate most excitatory neurotransmission in the brain and play an important role in neural plasticity, neural development and neurodegeneration. Ionotropic glutamate receptors are categorized into NMDA receptors and kainate/AMPA receptors, both of which contain glutamate-gated, cation-specific ion channels. Kainate/AMPA receptors are co-localized with NMDA receptors in many synapses and consist of seven structurally related subunits designated GluR-1 to -7. The kainate/AMPA receptors are primarily responsible for the fast excitatory neuro-transmission by glutamate whereas the NMDA receptors are functionally characterized by a slow kinetic and a high permeability for Ca2+ ions. The NMDA receptors consist of five subunits: ε1, 2, 3, 4 and one ζ subunit. The ζ subunit is expressed throughout the brainstem, whereas the four ε subunits display limited distribution.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GRIA2 (human) mapping to 4q32.1, GRIA3 (human) mapping to Xq25; Gria2 (mouse) mapping to 3 E3, Gria3 (mouse) mapping to X A3.3.

**SOURCE**

GluR-2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GluR-2 of human origin.

**PRODUCT**

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

Blocking peptide available for competition studies, sc-7610 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as PE conjugate for flow cytometry, sc-7610 PE, 100 tests.

**APPLICATIONS**

GluR-2 (C-20) is recommended for detection of GluR-2 and, to a lesser extent, GluR-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GluR-2 (C-20) is also recommended for detection of GluR-2 and, to a lesser extent, GluR-3 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of GluR-2: 100 kDa.

Positive Controls: mouse brain extract: sc-2253, rat brain extract: sc-2392 or BChH1 cell lysate: sc-2299.

**STORAGE**

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

**DATA**

GluR-2 (C-20): Western blot analysis of GluR-2 (glutamate receptor 2) expression in rat (A) and mouse (B) brain tissue extracts.

GluR-2 (C-20) PE: Intracellular FCM analysis of fixed and permeabilized SK-N-SH cells. Black line histogram represents the isotype control, normal goat IgG: sc-3992.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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