

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GluR4 in direct ELISA.
Source	Monoclonal Rabbit IgG Clone # 2913A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	E. coli-derived recombinant human GluR4 Met112-His314 Accession # P48058.2
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Iontropic glutamate receptor 4 (GluR4) is a 100.9 kDa protein that is part of a family (iGluR 1-7) of ligand-gated ion channels that mediates fast transmission of neurotransmitter signals in neuronal cells. These receptors respond to several agonists including N-methyl-D-aspartic acid (NMDA), α-amino-3-hydroxyl-5-methylisoxazole-4-propionic acid (AMPA), or kainic acid (KA). iGluRs are tetrameric structures made by the dimerization of dimers. These receptors can form through a combination of iGluR1-iGluR4 subunits. Mature human GluR4 is a 902 amino acid (aa) molecule, and alternate gene-splicing results in transcript variations encoding different isoforms that may effect their signal transduction properties. GluR4 is made up of an extracellular amino-terminal domain (ATD), ligand binding domain (LBD), a common pore-forming transmembrane domain (TMD) and an intracellular C-terminal domain (CTD). GluR4's clam-shell shaped LBD binds to agonists. The LBD closes upon ligand binding to induce a conformational change to the TMD, resulting in the ion channel opening. GluR4 is highly expressed in areas that utilize fast kinetics and rapid desensitization. Examples of GluR4 expression include tissues of the central cervical nucleus in rats, the outer plexiform layer of goldfish, the retinal cells of chicken embryos and the human cerebral cortex.

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