

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GluR7/GRIK3 in direct ELISA.
Source	Monoclonal Mouse IgG _{2B} Clone # 1059901
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human GluR7/GRIK3 containing peptide. Accession # Q13003
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

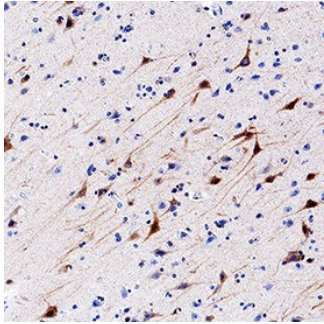
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	5-25 µg/mL	Immersion fixed paraffin-embedded sections of Human Hippocampus

DATA

Immunohistochemistry



Detection of GluR7/GRIK3 in Human Hippocampus.
GluR7/GRIK3 was detected in immersion fixed paraffin-embedded sections of Human Hippocampus using Mouse Anti-Human GluR7/GRIK3 Monoclonal Antibody (Catalog # MAB11328) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in neuronal cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GluR7 is a receptor for glutamate. Glutamate receptors are the predominant excitatory neurotransmitter receptors in the mammalian brain. This gene can co-assemble with GRIK4 or GRIK5 to form heteromeric receptors. GluR7 is one of the five subtypes of kainate receptors. Kainate receptors are widely expressed in the CNS and are involved in the regulation of transmitter release, synapse formation, and in the pathophysiology of brain diseases. Genetic variants in the GluR7 gene are associated with schizophrenia, major depression, and bipolar disorder.

References:

1. Entrez Gene: GRIK3 glutamate receptor, ionotropic, kainate 3.
2. Matute C. "Therapeutic Potential of Kainate Receptors". *CNS Neuroscience & Therapeutics*. 2011 Dec; **17(6)**:661.
3. Begni S, Popoli M, Moraschi S, Bignotti S, Tura G.B, Gennarelli M., "Association Between the Ionotropic Glutamate Receptor Kainate 3 (GRI3) Ser310Ala Polymorphism and Schizophrenia". *Mol Psychiatry*. 2002; **7(4)**:416.