Revision 2

#8652 Store at -20°C

AMPA Receptor (GluA) Antibody Sampler Kit

1 Kit (6 x 20 microliters)

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
AMPA Receptor 1 (GluA1) (D4N9V) Rabbit mAb	13185	20 µl	100 kDa	Rabbit IgG
AMPA Receptor 2 (GluA2) (E1L8U) Rabbit mAb	13607	20 µl	100 kDa	Rabbit IgG
AMPA Receptor 3 (GluA 3) (D47E3) Rabbit mAb	4676	20 µl	100 kDa	Rabbit IgG
AMPA Receptor 4 (GluA 4) (D41A11) XP® Rabbit mAb	8070	20 µl	100 kDa	Rabbit IgG
Phospho-AMPA Receptor 1 (GluA1) (Ser845) (D10G5) Rabbit mAb	8084	20 µl	100 kDa	Rabbit IgG
Phospho-AMPA Receptor 2 (GluA2) (Tyr869/Tyr873/Tyr876) Antibody	3921	20 µl	100 kDa	Rabbit
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The AMPA Receptor (GluA) Antibody Sampler Kit provides an economical means of evaluating the four subunits of AMPARs. The kit contains enough primary and secondary antibodies to perform two western blot experiments with each antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Background

AMPA- (α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid), kainate-, and NMDA- (N-methyl-D-aspartate) receptors are the three main families of ionotropic glutamate-gated ion channels. AMPA receptors (AMPARs) are comprised of four subunits (GluR 1-4), which assemble as homo- or hetero-tetramers to mediate the majority of fast excitatory transmissions in the central nervous system. AMPARs are implicated in synapse formation, stabilization, and plasticity (1). In contrast to GluR 2-containing AMPARs, AMPARs that lack GluR 2 are permeable to calcium (2). Post-transcriptional modifications (alternative splicing, nuclear RNA editing) and post-translational modifications (glycosylation, phosphorylation) result in a very large number of permutations, fine-tuning the kinetic properties of AMPARs. Research studies have implicated activity changes in AMPARs in a variety of diseases including Alzheimer's, amyotrophic lateral sclerosis (ALS), stroke, and epilepsy (1).

Background References

1. Palmer, C.L. et al. (2005) *Pharmacol Rev* 57, 253-77.
2. Cull-Candy, S. et al. (2006) *Curr Opin Neurobiol* 16, 288-97.

Trademarks and Patents

Limited Uses

compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.