

## Anti-NR2B Glutamate Receptor Monoclonal Antibody

### ORDERING INFORMATION

Catalog No.: 56472 (clone S59-20)  
Size: 100ug in PBS, pH 7.4; 50% glycerol, 0.09% sodium azide. Purified by Protein G affinity chromatography.

### BACKGROUND

Glutamate receptors of the NMDA subtype are involved in several physiological and pathological processes in the brain. Functional NMDA receptors are heteromultimeric complexes of the NR1 subunit and one or more of the four NR2 subunits (NR2A-D). Coexpression of both subunit types are required for the formation of fully functional channels that are inserted into the plasma membrane. The NR2 subunit determines characteristics of the channel such as conductance, mean open time, and sensitivity to  $Mg^{+2}$ . The ability of NR1 and NR2 subunit combinations to flux  $Ca^{+2}$  is essential to the role that NMDA receptors play in synaptic plasticity and neurotoxicity.

### SPECIFICATION SUMMARY

**Antigen:** Fusion protein aa 20-271 (extracellular N-terminus) of rat NR2B (accession no. Q00960). This sequence is 99% identical to human and mouse.

**Host Species:** Mouse

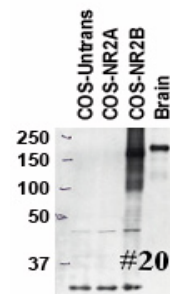
**Antibody Class:** IgG2a

### SPECIFICITY

This antibody recognizes human, mouse, and rat NR2B. It does not cross-react with NR2A.

### APPLICATIONS

**Immunoblotting:** use at 1-10ug/ml. A band of ~166kDa is detected.

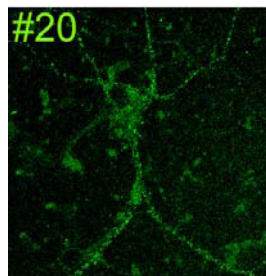


Lysates of rat brain and COS-7 cells transfected with empty, NR2A, and NR2B plasmids.

**Immunohistochemistry and**

**Immunocytochemistry:** use at 0.1-1ug/ml

**Immunofluorescence:** use at 1-10ug/ml



Cultured rat hippocampal neuron immunofluorescence. These are recommended concentrations.

User should determine optimal concentrations for their application.

**Positive control:** Rat brain lysate

### DILUTION INSTRUCTIONS

Dilute in PBS or medium which is identical to that used in the assay system.

### STORAGE AND STABILITY

This antibody is stable for at least one (1) year at  $-20^{\circ}C$ . Avoid repeated freezing and thawing.

*For in vitro investigational use only. Not for use in therapeutic or diagnostic procedures.*