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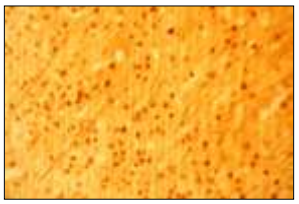
Antibodies that Shine



IHC image of neurons in rat cortex.

Glutamate Antibody

Catalog #	**22523**	**Product type**	Primary antibodies
Lot #	**136026**	**Clonality**	Monoclonal
Form	Lyophilized ascites (100 µL)	**Sub-Isotype**	IgG2a
Host	Mouse	**Preservative**	≤ 0.09% sodium azide
Reacts With	Crustacean/Isopod, Cat, Cockroach, Fish, Hamster, Human, Leech, Monkey, Mouse, Lobster, Rabbit, Rat	**Antigen**	Glutamate with a Glu-1 clone is coupled to keyhole limpet hemocyanin (KLH) with glutaraldehyde.

INSTRUCTIONS

Preparation	The product does not need to be kept cooled during shipping; however, for long-term storage store unopened vial until ready to use at -15ºC or lower. Do not reconstitute until ready to use. Reconstitute with 100 µL of distilled or deionized water and store at 2º–8ºC. To avoid freeze/thaw cycles, dilute unused antibody with PBS or Tris buffer at a dilution no higher than 1/10, then aliquot and freeze at -15ºC or lower. Refer to the Instruction Manual available online at www.immunostar.com for information on tissue preparation, immunostaining techniques, troubleshooting, and formulas.

APPLICATION

Quality Control	The antibody produces significant labeling of glutamate at dilutions of 1/2,000–1/4,000 using biotin-avidin/HRP technique. Optimal dilution will vary depending upon fixation, labeling technique and/or detection system; therefore, a dilution series is recommended. Glutamate tissue staining is completely eliminated by preincubation with glutamate conjugate at concentrations of 100 µg conjugate per mL of diluted antiserum. Aspartate and glutamine conjugates could not significantly inhibit tissue staining. The following amino acids were tested for cross reactivity using an enzyme-linked immunoassay method. Wells were coated with Glu-Glut-BTg at 1 µg per mL. Amino acids and conjugate were added at concentrations from 10 µg to 1 ng per mL. The Glutamate antibody was added to wells at 1 µg per mL. These amino acids were found to have cross reactivity at less than 1%: Beta-alanine, L-alanine, L-aspartic acid, L-glutamic acid, Glycine, Taurine and L-tyrosine. Note: Staining results could be impaired with the use of Triton X-100 or other detergents and should be avoided.
Tissue	Rat cortex and hippocampus
Perfusion Fixation	• Fixative: 4% paraformaldehyde/0.3% glutaraldehyde in 0.1M phosphate buffer, pH 7.4; 500 mL over 20 min. • Post Fixation: 1.5 hour at 4°C in 4% paraformaldephyde/0.3% glutaraldehyde in 0.1 M phosphate buffer, pH 7.4. • Note: Glutaraldehyde is a necessary component of fixation with this antibody. Higher concentrations of glutaraldehyde (e.g. 1–2%) may be used if needed.
Sections	50 µm vibratome
Tissue Incubation	18–24 hours at 2°–8°C
Detection System	Use Bn-Av/HRP at dilutions recommended by the manufacturer.
Suggested Dilution	1/2,000-1/4,000 in PBS - Bn-Av/HRP immunohistochemistry

NOTES

Special Instructions	It is recommended that the researcher perform a primary antibody dilution series using our dilution recommendations as a guideline. Note that a change in the fixation or buffering system from our protocol may change the configuration of the protein which could alter the reactivity with the tissue tested.
Storage	After reconstitution, use immediately or refrigerate at 2º–8ºC up to 2 days. For long-term storage, aliquot and freeze at -15°C or lower. Avoid repeated freeze/thaw cycles.
Concentration	Not applicable. Antibody concentration is only relevant for purified antibodies.
Journal References	www.immunostar.com/publications

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