



## GABA TRANSPORTER: GAT-1 SPECIFICATION SHEET

### INTRODUCTION

The histochemical antibody for GAT-1 is generated in a rabbit against synthetic peptide sequence corresponding to amino acids 588-599 of the predicted C-terminus of rat GAT-1. The antibody is provided as 100  $\mu$ L of affinity purified serum containing 1% BSA and 0.02% sodium azide as a preservative.

### CONTROLS

The antibody produces 4+ indirect immunofluorescent staining at a 1/400 - 1/800 dilution and a 4+ labeling of GAT-1 at dilutions of 1/3,000 - 1/6,000 using biotin-streptavidin/HRP technique in rat hippocampus and striatum. Optimal dilution will vary depending upon fixation, labeling technique and/or detection system; therefore, a dilution series is recommended. The antiserum has been characterized as specific to GAT-1; please see reference listed below. Immunolabeling is completely abolished by preadsorption with synthetic rat GAT-1 (588-599) at a concentration of  $10^{-5}$  M.

### STORAGE AND HANDLING

Preparation: Reconstitute vial with 100  $\mu$ L of distilled or deionized water.

Storage after reconstitution: Dilute with PBS or Tris buffer at a dilution no higher than 1/10, divide into aliquots and freeze at  $-15^{\circ}$  C. or lower.

Stability after reconstitution: Antibody can be stored for up to six months if handled as described above.

### SPECIAL INSTRUCTIONS

The antibody may be used at a higher dilution. The customer should explore diluting the antibody further in order to optimize staining results. Note that a change in the buffering system as used in our protocol may change the configuration of the protein and, therefore, may alter the reactivity with the tissue tested.

Please read the instruction booklet carefully before beginning the procedure.

**Analyte Specific Reagent. Analytical and performance characteristics are not established.**



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**SCREENING OF ANTIBODIES FOR IMMUNOHISTOCHEMISTRY**

Antigen: rat GAT-1 (588-599) coupled to KLH with glutaraldehyde. Raised in rabbit.

Test Date: 3/17/01, 3/22/01

Performed By: JS

Control Tissue: Rat hippocampus and striatum.

Perfusion Fixation: Fixative - 4% paraformaldehyde in 0.1 M Phosphate buffer, pH 7.4; 500 mL over approximately 20 minutes.

Post Fixation - 1.5 hour at 4° C. in 4% paraformaldehyde in 0.1 M phosphate buffer, pH 7.4.

Note: If needed, low levels of glutaraldehyde (0.1 - 0.3%) may be used in conjunction with paraformaldehyde.

Sections: 10 µm cryostat or 50 µm vibratome

Antibody dilution:1/3,000 - 1/6,000 in PBS/0.3% Triton X-100 - Bn-SA/HRP

Incubation on Tissue: 16 hours at 4° C.

DETECTION SYSTEM

Use Cy3 and Bn-SA/HRP reagents at dilutions recommended by the manufacturer.

REFERENCE: A. Minelli, N. Brecha, C. Karschin, S. DeBiasi, and F. Conti, GAT-1, a High-Affinity GABA Plasma Transporter, Is Localized to Neurons and Astroglia in the Cerebral Cortex. The Journal of Neuroscience, November 1995, 15(11):7734-7746.

RELATED PRODUCTS

Rabbit anti-GAT-2, Catalogue #24459  
Rabbit anti-GAT-3, Catalogue #24460  
Rabbit anti-GABA, Catalogue #20094

**Reagents Containing Sodium Azide**

**CAUTION:** This reagent contains sodium azide. Sodium azide may react with lead or copper plumbing to form highly explosive metal azides. On disposal, flush with a large volume of water to prevent azide build-up. For further information, refer to "Decontamination of Laboratory Sink Drains to Remove Azide Salts," in the Manual Guide-Safety Management No. CDC-22 issued by the Centers for Disease Control and Prevention, Atlanta, GA, 1976.



**European Communities Hazardous Substance Risk Phrases (Council Directive 88/379/EEC)**

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

R32 - Contact with acids liberates very toxic gas.

S28 - After contact with skin, wash immediately with plenty of water.

**This product contains dry natural rubber.**