BOSTER
antibody and ELISA experts

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Anti-GABA Transporter 1/GAT 1/SLC6A1 Antibody Picoband®

Catalog Number: A05109

About SLC6A1

GABA transporter 1 (GAT1), also known as sodium- and chloride-dependent GABA transporter 1, is a protein that in humans is encoded by the SLC6A1 gene. GABA Transporter 1 uses Na+ and Cl- to create a gradient, which removes or adds GABA to extracellular spaces in the cerebrum and cerebellum. The stoichiometry for GABA Transporter 1 is 2 Na+: 1 Cl-: 1 GABA. The activity of GAT1 is largely dependent on the presence of Na+, while Cl- assists by increasing the ability for GAT-1 to uptake GABA.

Overview

Product Name	Anti-GABA Transporter 1/GAT 1/SLC6A1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-GABA Transporter 1/GAT 1/SLC6A1 Antibody Picoband® catalog # A05109. Tested in IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P30531

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SLC6A1, different from the related mouse and rat sequences by two amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat Immunofluorescence, 5 ug/ml, Human

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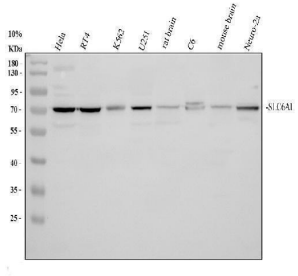
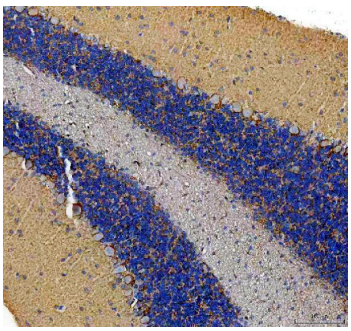
Anti-GABA Transporter 1/GAT 1/SLC6A1 Antibody Picoband® (A05109) Images



Western blot analysis of SLC6A1 using anti-SLC6A1 antibody (A05109). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human RT4 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human U251 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse Neuro-2a whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SLC6A1 antigen affinity purified polyclonal antibody (Catalog # A05109) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for SLC6A1 at approximately 67 kDa. The expected band size for SLC6A1 is at 67 kDa.

IHC analysis of SLC6A1 using anti-SLC6A1 antibody (A05109. SLC6A1 was detected in a paraffin-embedded section of mouse cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SLC6A1 Antibody (A05109) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of SLC6A1 using anti-SLC6A1 antibody (A05109. SLC6A1 was detected in a paraffin-embedded section of rat cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SLC6A1 Antibody (A05109) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of SLC6A1 using anti-SLC6A1 antibody (A05109. SLC6A1 was detected in a paraffin-embedded section of rat

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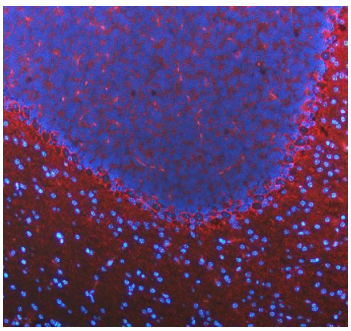
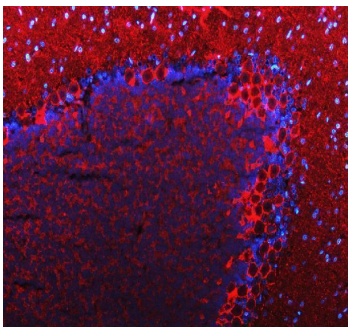


IF analysis of SLC6A1 using anti-SLC6A1 antibody (A05109). SLC6A1 was detected in a paraffin-embedded section of mouse cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-SLC6A1 Antibody (A05109) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF analysis of SLC6A1 using anti-SLC6A1 antibody (A05109). SLC6A1 was detected in a paraffin-embedded section of rat cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-SLC6A1 Antibody (A05109) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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For Research Use Only. Not for use in diagnostic procedures.