

## Anti-SLC7A14 Antibody Picoband®

Catalog Number: A11162-2

### About SLC7A14

This gene is predicted to encode a glycosylated, cationic amino acid transporter protein with 14 transmembrane domains. This gene is primarily expressed in skin fibroblasts, neural tissue, and primary endothelial cells and its protein is predicted to mediate lysosomal uptake of cationic amino acids. Mutations in this gene are associated with autosomal recessive retinitis pigmentosa. In mice, this gene is expressed in the photoreceptor layer of the retina where its expression increases over the course of retinal development and persists in the mature retina.

### Overview

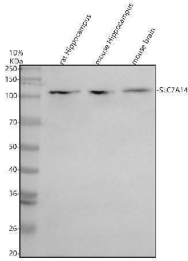
Product Name	Anti-SLC7A14 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SLC7A14 Antibody Picoband® catalog # A11162-2. Tested in WB, IHC, IF, Flow Cytometry, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium 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	ELISA, Flow Cytometry, IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q8TBB6

### Technical Details

Immunogen	E.coli-derived human SLC7A14 recombinant protein (Position: D9-E771). Human SLC7A14 shares 97% amino acid (aa) sequence identity with mouse SLC7A14.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Mouse, Rat Immunofluorescence, 5 ug/ml, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human

	ELISA, 0.1-0.5 ug/ml
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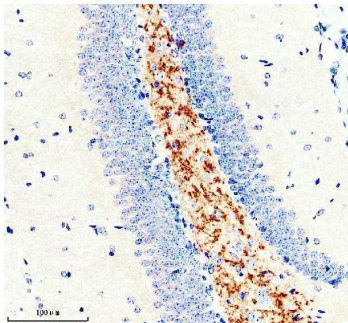
## Anti-SLC7A14 Antibody Picoband® (A11162-2) Images



Western blot analysis of SLC7A14 using anti-SLC7A14 antibody (A11162-2). 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: rat hippocampus tissue lysates, Lane 2: mouse hippocampus tissue lysates, Lane 3: mouse brain tissue 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-SLC7A14 antigen affinity purified polyclonal antibody (A11162-2) 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 SLC7A14 at approximately 84 kDa. The expected band size for SLC7A14 is at 84 kDa.

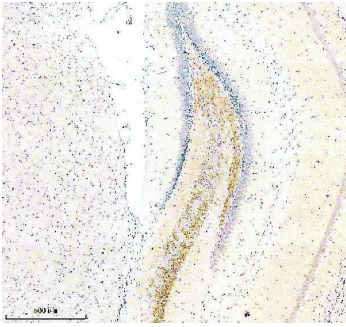


IHC analysis of SLC7A14 using anti-SLC7A14 antibody (A11162-2). SLC7A14 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SLC7A14 Antibody (A11162-2) 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.

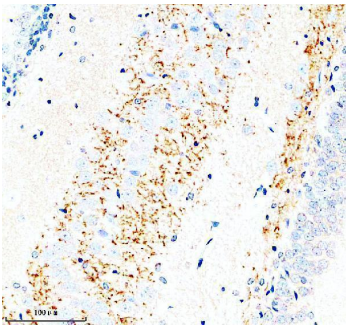


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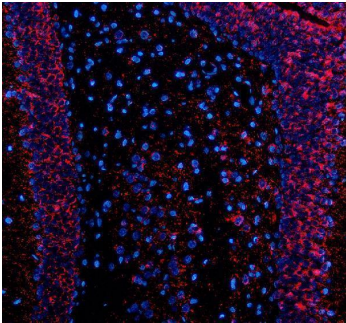
IHC analysis of SLC7A14 using anti-SLC7A14 antibody (A11162-2). SLC7A14 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat



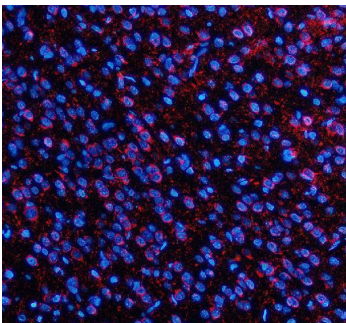
serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SLC7A14 Antibody (A11162-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



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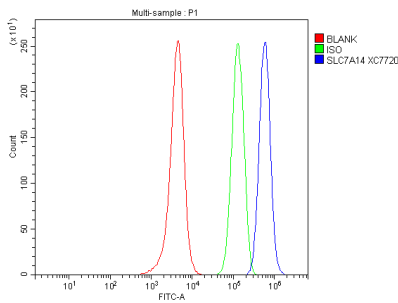


IF analysis of SLC7A14 using anti-SLC7A14 antibody (A11162-2). SLC7A14 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-SLC7A14 Antibody (A11162-2) 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 SLC7A14 using anti-SLC7A14 antibody (A11162-2). SLC7A14 was detected in a paraffin-embedded section of rat brain 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-SLC7A14 Antibody (A11162-2) 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.

Flow Cytometry analysis of SH-SY5Y cells using anti-SLC7A14 antibody (A11162-2). Overlay histogram showing SH-SY5Y cells stained with A11162-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization



buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SLC7A14 Antibody (A11162-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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### Anti-SLC7A14 Antibody

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