

## Anti-PDE6 beta/PDE6B Antibody Picoband® (monoclonal, 8I2D7)

Catalog Number: M02659-1

### About PDE6B

Photon absorption triggers a signaling cascade in rod photoreceptors that activates cGMP phosphodiesterase (PDE), resulting in the rapid hydrolysis of cGMP, closure of cGMP-gated cation channels, and hyperpolarization of the cell. PDE is a peripheral membrane heterotrimeric enzyme made up of alpha, beta, and gamma subunits. This gene encodes the beta subunit. Mutations in this gene result in retinitis pigmentosa and autosomal dominant congenital stationary night blindness. Multiple transcript variants encoding different isoforms have been found for this gene.

### Overview

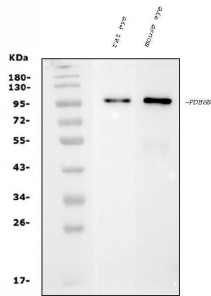
Product Name	Anti-PDE6 beta/PDE6B Antibody Picoband® (monoclonal, 8I2D7)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PDE6 beta/PDE6B Antibody Picoband® (monoclonal, 8I2D7) catalog # M02659-1. Tested in FCM, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 8I2D7
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 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	Mouse
Uniprot ID	P35913

### Technical Details

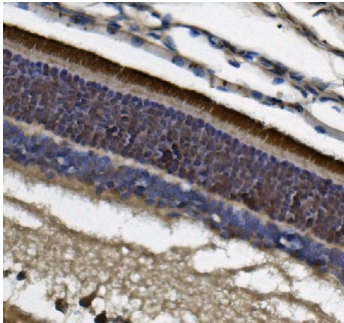
Immunogen	E.coli-derived human PDE6 beta/PDE6B recombinant protein (Position: K25-Q237).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2a
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, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x <sup>6</sup> cells, Human

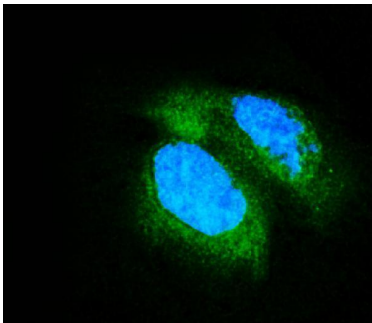
## Anti-PDE6 beta/PDE6B Antibody Picoband® (monoclonal, 8I2D7) (M02659-1) Images



Western blot analysis of PDE6 beta/PDE6B using anti-PDE6 beta/PDE6B antibody (M02659-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat eye tissue lysates, Lane 2: mouse eye 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 mouse anti-PDE6 beta/PDE6B antigen affinity purified monoclonal antibody (Catalog # M02659-1) 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-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for PDE6 beta/PDE6B at approximately 98 kDa. The expected band size for PDE6 beta/PDE6B is at 98 kDa.

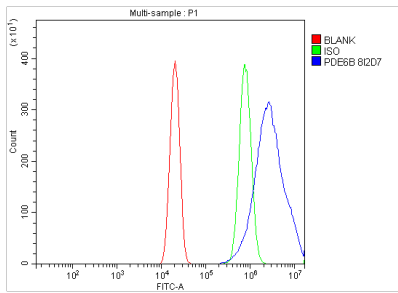


IHC analysis of PDE6 beta/PDE6B using anti-PDE6 beta/PDE6B antibody (M02659-1). PDE6 beta/PDE6B was detected in a paraffin-embedded section of rat eye ball tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-PDE6 beta/PDE6B Antibody (M02659-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.



IF analysis of PDE6 beta/PDE6B using anti-PDE6 beta/PDE6B antibody (M02659-1). PDE6 beta/PDE6B was detected in an immunocytochemical section of SH-SY5Y cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL mouse anti-PDE6 beta/PDE6B Antibody (M02659-1) overnight at 4°C. DyLight@488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 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 U2OS cells using anti-PDE6 beta/PDE6B antibody (M02659-1). Overlay histogram showing U2OS cells stained with M02659-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with mouse



anti-PDE6 beta/PDE6B Antibody (M02659-1, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 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 mouse 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-PDE6 beta/PDE6B Antibody (monoclonal, 812D7)

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