

Rabbit PDE6 alpha/PDE6A Polyclonal Antibody | anti-PDE6A antibody

Anti-PDE6 alpha/PDE6A Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19318	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

PDE6 alpha/PDE6A; Polyclonal Antibody; Anti-PDE6 alpha/PDE6A Antibody; Rod cGMP-specific 3'; 5'-cyclic phosphodiesterase subunit alpha; GMP-PDE alpha; PDE V-B1; PDE6A; PDEA; phosphodiesterase 6A; anti-PDE6A antibody

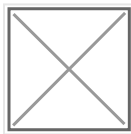
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for PDE6 alpha/PDE6A detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-PDE6A antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.1-0.25ug/ml Mouse, Rat IHC-P: 0.5-1ug/ml Human, Rat ICC/IF: 4ug/ml Human FC/FACS/FCM: 1-3ug/1x106 cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human PDE6 alpha/PDE6A recombinant protein (Position: K11-R237).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 6. Flow Cytometry analysis of HELA cells using anti-PDE6 alpha/PDE6A antibody (AAA19318).Overlay histogram showing HELA cells stained with AAA19318 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PDE6 alpha/PDE6A Antibody (AAA19318, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



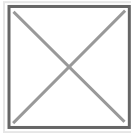
FCM (Flow Cytometry)

Figure 5. Flow Cytometry analysis of A549 cells using anti-PDE6 alpha/PDE6A antibody (AAA19318).Overlay histogram showing A549 cells stained with AAA19318 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PDE6 alpha/PDE6A Antibody (AAA19318, 1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 4. IF analysis of PDE6 alpha/PDE6A using anti-PDE6 alpha/PDE6A antibody (AAA19318).PDE6 alpha/PDE6A was detected in immunocytochemical section of CACO-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4μg/mL rabbit anti- PDE6 alpha/PDE6A Antibody (AAA19318) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of PDE6 alpha/PDE6A using anti-PDE6 alpha/PDE6A antibody (AAA19318).PDE6 alpha/PDE6A was detected in paraffin-embedded section of rat retina tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PDE6 alpha/PDE6A Antibody (AAA19318) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of PDE6 alpha/PDE6A using anti-PDE6 alpha/PDE6A antibody (AAA19318).PDE6 alpha/PDE6A was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PDE6 alpha/PDE6A Antibody (AAA19318) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of PDE6 alpha/PDE6A using anti-PDE6 alpha/PDE6A antibody (AAA19318).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 50ug of sample under reducing conditions.Lane 1: rat eye tissue lysatesLane 2: mouse eye tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-PDE6 alpha/PDE6A antigen affinity purified polyclonal antibody (Catalog # AAA19318) at 0. 25 μg/mL overnight at 4 degree 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # with Tanon 5200 system. A specific band was detected for PDE6 alpha/PDE6A at approximately 100KD. The expected band size for PDE6 alpha/PDE6A is at 100KD.

ADDITIONAL INFORMATION

Related Product Information for anti-PDE6A antibody

This gene encodes the cyclic-GMP (cGMP)-specific phosphodiesterase 6A alpha subunit, expressed in cells of the retinal rod outer segment. The phosphodiesterase 6 holoenzyme is a heterotrimer composed of an alpha, beta, and two gamma subunits. cGMP is an important regulator of rod cell membrane current, and its dynamic concentration is established by phosphodiesterase 6A cGMP hydrolysis and guanylate cyclase cGMP synthesis. The protein is a subunit of a key phototransduction enzyme and participates in processes of transmission and amplification of the visual signal. Mutations in this gene have been identified as one cause of autosomal recessive retinitis pigmentosa.

References	<ol style="list-style-type: none"> 1. Corton, M., Blanco, M. J., Torres, M., Sanchez-Salorio, M., Carracedo, A., Brion, M. Identification of a novel mutation in the human PDE6A gene in autosomal recessive retinitis pigmentosa: homology with the nmf28/nmf28 mice model. (Letter) Clin. Genet. 78: 495-498, 2010. 2. Khan, S. Y., Ali, S., Naeem, M. A., Khan, S. N., Husnain, T., Butt, N. H., Qazi, Z. A., Akram, J., Riazuddin, S., Ayyagari, R., Hejtmancik, J. F., Riazuddin, S. A. Splice-site mutations identified in PDE6A responsible for retinitis pigmentosa in consanguineous Pakistani families. Molec. Vision 21: 871-882, 2015. 3. Tuntivanich, N., Pittler, S. J., Fischer, A. J., Omar, G., Kiupel, M., Weber, A., Yao, S., Steibel, J. P., Khan, N. W., Petersen-Jones, S. M. Characterization of a canine model of autosomal recessive retinitis pigmentosa due to a PDE6A mutation. Invest. Ophthal. Vis. Sci. 50: 801-813, 2009.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	170650674
NCBI GeneID	5145
UniProt Accession #	P16499; Q0P638
NCBI Official Full Name	rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit alpha [Homo sapiens]
NCBI Official Synonym Full Names	phosphodiesterase 6A, cGMP-specific, rod, alpha
NCBI Official Symbol	PDE6A
NCBI Official Synonym Symbols	PDEA; RP43; CGPR-A; PDE6A
UniProt Protein Name	Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit alpha
UniProt Gene Name	PDE6A
UniProt Synonym Gene Names	PDEA
UniProt Entry Name	PDE6A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.