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anti-PDE4D antibody (AA 466-709)





Overview

| Quantity: | 100 μg |
|----------------------|--|
| Target: | PDE4D |
| Binding Specificity: | AA 466-709 |
| Reactivity: | Human, Rat, Mouse |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Application: | Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Flow Cytometry (FACS), Immunocytochemistry (ICC) |

Product Details

| Brand: | Picoband™ |
|-----------------------------|--|
| Immunogen: | E. coli-derived human PDE4D recombinant protein (Position: H466-Q709). |
| Cross-Reactivity (Details): | No cross reactivity with other proteins. |
| Characteristics: | Rabbit IgG polyclonal antibody for PDE4D detection. Tested with WB, IHC-P, IHC-F, ICC, FCM, Direct ELISA in Human, Mouse, Rat. |

Target Details

| Target: | PDE4D |
|-------------------|--|
| Alternative Name: | PDE4D (PDE4D Products) |
| Background: | Synonyms: cAMP-specific 3',5'-cyclic phosphodiesterase 4D, DPDE3, PDE43, PDE4D, DPDE3 |
| | Tissue Specificity: Expressed in colonic epithelial cells (at protein level). Widespread, most |

| abundant in skeletal muscle. Isoform 6 is detected in brain. Isoform 8 is detected in brain, | | |
|---|--|--|
| placenta, lung and kidney. Isoform 7 is detected in heart and skeletal muscle. | | |
| Background: cAMP-specific 3',5'-cyclic phosphodiesterase 4D is an enzyme that in humans is | | |
| encoded by the PDE4D gene. This gene encodes one of four mammalian counterparts to the | | |
| fruit fly 'dunce' gene. The encoded protein has 3',5'-cyclic-AMP phosphodiesterase activity and | | |
| degrades cAMP, which acts as a signal transduction molecule in multiple cell types. This gene | | |
| uses different promoters to generate multiple alternatively spliced transcript variants that | | |
| encode functional proteins. | | |

UniProt:

Q08499

Pathways:

Cellular Response to Molecule of Bacterial Origin, cAMP Metabolic Process, Myometrial Relaxation and Contraction, Regulation of G-Protein Coupled Receptor Protein Signaling

Application Details

Application Notes:

Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.

Application Details: Western blot, 0.1-0.5 µg/mL

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL

Immunohistochemistry(Frozen Section), 0.5-1 μg/mL

Immunocytochemistry, 0.5-1 μg/mL

Flow Cytometry, 1-3 µg/1x10⁶ cells

Direct ELISA, 0.1-0.5 µg/mL

Restrictions:

For Research Use only

Handling

| Format: | Lyophilized |
|--------------------|--|
| Reconstitution: | Add 0.2 mL of distilled water will yield a concentration of 500 μg/mL. |
| Buffer: | Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , 0.05 mg NaN ₃ . |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | 4 °C,-20 °C |

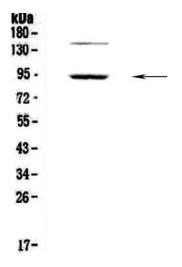
Handling

Storage Comment:

At -20°C for one year. After reconstitution, at 4°C for one month.

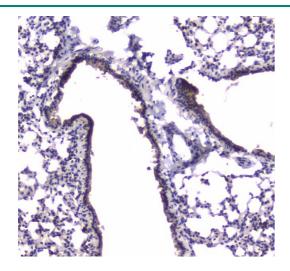
It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

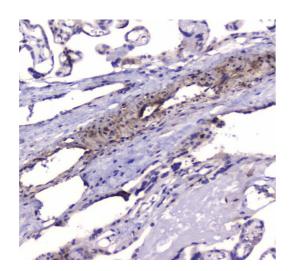
Images



Western Blotting

Image 1. Western blot analysis of PDE4D using anti-PDE4D antibody. 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: human Hela whole cell 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-PDE4D antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PDE4D at approximately 91KD. The expected band size for PDE4D is at 91KD.





Immunohistochemistry

Image 2. IHC analysis of PDE4D using anti-PDE4D antibody . PDE4D was detected in paraffin-embedded section of mouse lung tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1μg/ml rabbit anti-PDE4D Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Immunohistochemistry

Image 3. IHC analysis of PDE4D using anti-PDE4D antibody . PDE4D was detected in paraffin-embedded section of human placenta tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-PDE4D Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Please check the product details page for more images. Overall 4 images are available for ABIN5693278.