Product datasheet

Anti-PDE4 antibody ab14628

11 References  2 Images

Overview

Product name: Anti-PDE4 antibody
Description: Rabbit polyclonal to PDE4
Host species: Rabbit
Specificity: This antibody detects all known PDE4 A and D variants including PDE4A1, A5, Ax, A8 and PDE4D1-D5. It has low affinity for PDE4B variants.

Tested applications: Suitable for: WB, ICC/IF
Species reactivity: Reacts with: Mouse, Rat, Human
Immunogen: Synthetic peptide (the amino acid sequence is considered to be commercially sensitive).
Positive control: Rat brain.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Preservative: 0.02% Thimerosal (merthiolate)
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab14628 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>WB</td>
<td></td>
<td>Use at an assay dependent dilution.</td>
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<tr>
<td>ICC/IF</td>
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<td>Use a concentration of 1 µg/ml.</td>
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Relevance
The cAMP-specific Phosphodiesterase type 4 (PDE4) family is comprised of 4 genes (PDE4 A, B, C and D) with multiple splice variants generated by RNA splicing and use of alternate initiation sites. The cAMP-dependent protein kinase A modulates the enzyme activity of some PDE4 family members by phosphorylation / dephosphorylation mechanisms. Such short-term regulatory mechanisms are necessary for rapid changes in the cAMP levels in cells. PDE4 family selective inhibitor, rolipram inhibits all members of the PDE4 family. In rodents inhibition of PDE4 enzymes by rolipram attenuated short- and long-term memory impairment produced by the administration of scopolamine and MK801. Interaction of these enzymes with cellular scaffolding proteins plays important role in PDE4 compartmentalization and cAMP-dependent signaling.

Cellular localization
Cell Membrane

Images

ab 14628 detecting 3 isoforms of PDE4A subclasses (PDE4A1, PDE4A5 and PDE4Ax), two isoforms of PDE4D (PDE4D1, PDE4D3) in rat brain by Western blot.

ICC/IF image of ab14628 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab14628, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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