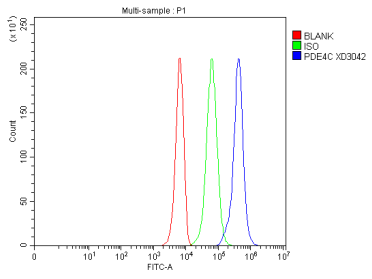
PDE4C Antibody / 3',5'-cyclic-AMP phosphodiesterase 4C Antibody (FY13536)

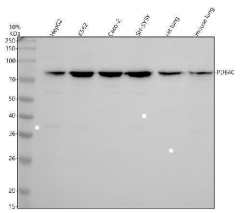
Catalog No.	Formulation	Size
FY13536	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q08493
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This PDE4C Antibody / 3',5'-cyclic-AMP phosphodiesterase 4C Antibody is supplied exclusively for research use.



PDE4C Antibody by FACS in K562 cells. Flow cytometric analysis using 3',5'-cyclic-AMP phosphodiesterase 4C Antibody shows a rightward fluorescence shift in stained K562 cells (blue histogram) relative to the rabbit IgG isotype control (green) and unstained cells (red). Cells were fixed in 4% paraformaldehyde and blocked with 10% goat serum. Primary antibody was applied at 1 ug per 1 x 10^6 cells for 30 minutes at 20oC, followed by DyLight 488-conjugated secondary antibody. The histogram documents antibody-associated fluorescence under the reported staining conditions.



PDE4C Antibody by WB in human and rodent lysates. Western blot analysis using 3',5'-cyclic-AMP phosphodiesterase 4C Antibody detects a band near 80 kDa in HepG2 (lane 1), K562 (lane 2), Caco-2 (lane 3), SH-SY5Y (lane 4), rat lung (lane 5), and mouse lung (lane 6). This migration agrees with the reported approximately 80 kDa molecular weight of PDE4C. Reduced lysates containing 30 ug protein per lane were separated by 10% SDS-PAGE and transferred to nitrocellulose. Membranes were incubated with primary antibody at 0.5 ug/mL overnight at 4oC and developed with an HRP-conjugated secondary antibody and chemiluminescent detection.

Description

PDE4C Antibody / 3',5'-cyclic-AMP phosphodiesterase 4C Antibody detects PDE4C, a cyclic nucleotide phosphodiesterase that hydrolyzes cyclic AMP into 5-prime AMP. Cyclic AMP acts as a second messenger downstream of many receptors and regulates processes mediated by protein kinase A, exchange proteins activated by cyclic AMP, and other effectors. PDE4 enzymes help terminate or shape these signals by controlling the local concentration of cyclic AMP. PDE4C belongs to a family that also includes PDE4A, PDE4B, and PDE4D, each with distinct regulatory and expression characteristics.

The location and regulation of a phosphodiesterase can be as important as its catalytic activity. Cyclic AMP signaling often occurs in spatially organized compartments, where enzymes and scaffolding proteins create local signaling environments. PDE4C contributes to this broader principle of signal compartmentalization, although its functions are not identical to those of better-studied PDE4 isoforms. Regulatory domains and interactions with other proteins may influence where the enzyme operates and how it responds to cellular signals. Selective control of cyclic AMP degradation allows cells to fine-tune the intensity and duration of signaling. The 3',5'-cyclic-AMP phosphodiesterase 4C Antibody designation identifies this molecular target by its descriptive protein name.

PDE4C has been investigated in relation to epithelial physiology and other tissue-specific signaling contexts. Changes in cyclic AMP metabolism can influence secretion, differentiation, and responses to extracellular stimuli, but the specific consequences depend on the cellular setting. Because several PDE4 family members can be present together, attributing a response to PDE4C requires distinguishing its contribution from those of related enzymes. NSJ Bioreagents provides the PDE4C Antibody for this signaling protein target. A PDE4C Antibody relates to the regulation of cyclic AMP turnover and the organization of intracellular second-messenger pathways.

Explore related research targets in our Signal Transduction Antibodies for Cell Signaling and Regulatory Pathway Research collection.

Application Notes

The optimal working dilution of the PDE4C Antibody / 3',5'-cyclic-AMP phosphodiesterase 4C Antibody should be determined empirically by the investigator.

Immunogen

The PDE4C Antibody was generated using a synthetic peptide corresponding to a sequence at the N-terminus of human PDE4C.

Storage

Once reconstituted, refrigerate the PDE4C Antibody at 4oC for no longer than one month. For extended storage, freeze aliquots at -20oC for up to six months and avoid repeated freeze-thaw cycles.

Alternate Names

PDE4C antibody, 3',5'-cyclic-AMP phosphodiesterase 4C antibody, 3' antibody, 5'-cyclic-AMP phosphodiesterase 4C antibody, phosphodiesterase 4C antibody, DPDE1 antibody, cAMP-specific 3' antibody, 5'-cyclic phosphodiesterase 4C antibody, PDE21 antibody

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