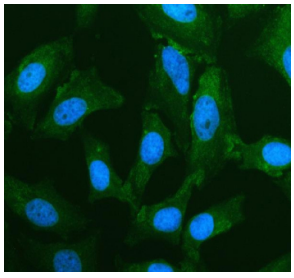
PDE8B Antibody / Phosphodiesterase 8B (FY13453)

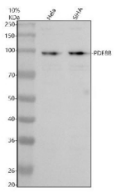
Catalog No.	Formulation	Size
FY13453	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
UniProt	Q9BRX2
Localization	Cytoplasm
Applications	Western Blot : 0.25-0.5ug/ml Immunofluorescence : 5ug/ml
Limitations	This PDE8B antibody is available for research use only.



Immunofluorescence analysis of Phosphodiesterase 8B using PDE8B antibody. PDE8B expression was examined in cultured HeLa cells. Enzymatic antigen retrieval was performed prior to staining. Cells were blocked with normal goat serum and incubated with PDE8B antibody (green) overnight at 4C. Immunoreactivity was visualized by fluorescence microscopy, and nuclei were counterstained with DAPI (blue).



Western blot analysis of PDE8B using PDE8B antibody. Protein lysates from human HeLa cells (Lane 1) and human SiHa cells (Lane 2) were resolved by SDS-PAGE under reducing conditions and transferred to a nitrocellulose membrane. PDE8B was detected as a band at approximately 99 kDa, consistent with the predicted molecular weight of Phosphodiesterase 8B. Detection was performed using an HRP-based secondary antibody and chemiluminescent substrate.

Description

PDE8B antibody targets Phosphodiesterase 8B, encoded by the PDE8B gene. Phosphodiesterase 8B is a cytoplasmic enzyme that belongs to the phosphodiesterase family of cyclic nucleotide hydrolases and is highly selective for cyclic AMP. By catalyzing the hydrolysis of cAMP to AMP, PDE8B plays an important role in regulating intracellular second messenger signaling and maintaining precise control of cAMP-dependent pathways.

Phosphodiesterase 8B is distinguished from many other PDE family members by its high affinity for cAMP and its relative insensitivity to common non-selective phosphodiesterase inhibitors. This biochemical profile allows PDE8B to fine-tune localized cAMP pools rather than broadly suppress cyclic nucleotide signaling. A PDE8B antibody supports studies focused on cAMP metabolism, signal compartmentalization, and regulation of protein kinase A dependent pathways.

PDE8B expression has been reported in multiple tissues, with notable roles in endocrine and metabolic contexts where tight regulation of cAMP signaling is essential. At the subcellular level, Phosphodiesterase 8B is primarily localized to the cytoplasm, where it can modulate signaling complexes that depend on rapid changes in cyclic nucleotide concentration. Its expression pattern and localization support a role in shaping stimulus-specific cAMP responses rather than global signaling shutdown.

From a disease-related perspective, altered PDE8B activity has been investigated in disorders involving dysregulated cAMP signaling, including endocrine abnormalities and certain cancers. Genetic variation or changes in PDE8B expression can influence hormone responsiveness and downstream transcriptional programs, highlighting its relevance in studies of signaling imbalance and cellular regulation.

At the molecular level, Phosphodiesterase 8B contains conserved catalytic domains characteristic of cAMP-specific phosphodiesterases, supporting efficient cyclic nucleotide hydrolysis. Its activity and apparent behavior in experimental systems may vary with cellular context and signaling state without altering the underlying protein structure. PDE8B antibody reagents enable investigation of cAMP signaling regulation and phosphodiesterase biology, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the PDE8B antibody should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Phosphodiesterase 8B was used as the immunogen for the PDE8B antibody.

Storage

After reconstitution, the PDE8B antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.