

---

## PDE4A8 Antibody Blocking Peptide

Catalog Number: bs-9719P

Activity: Not tested

Purification: HPLC

Storage: Shipped at 4°C. Stored at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** Enzymes of the cAMP-dependent phosphodiesterase type 4 (PDE4) family are important in hydrolyzing cAMP produced by G-protein coupled receptor (GPCR) stimulated adenylyl cyclases. In brain, more than 90% of cAMP formed by the stimulation of GPCRs is hydrolyzed by PDE4 enzymes. PDE4 enzymes are also important molecular targets for a variety of therapeutic agents like antidepressants, anti-asthmatics, and anti-inflammatory drugs. PDE4 family comprises 4 genes (PDE4A, B, C and D); each exhibiting multiple isozymes due to alternate splicing that leads to a larger number of distinct PDE4 variants. Members of the PDE4 family are regulated/activated by phosphorylation/dephosphorylation by cAMP-dependent protein kinase A and phosphatases. Protein-protein interactions and cellular trafficking of PDE4A enzymes play an important role in cAMP compartmentalization and cAMP-dependent signaling. In brain members of the PDE4A, B and D family are associated with GPCRs (adrenergic and dopaminergic) signaling. There are 5 isoforms.