
RAPGEF3 Antibody Blocking Peptide

Catalog Number: bs-8682P

Activity: Not tested

Purification: HPLC

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

Background: The activation of RaP1 by cAMP is independent of PKA and is mediated by recently discovered family of guanine nucleotide exchange factors (GEFs) called cAMP-GEFs or Epacs. The Epac signaling therefore represents a novel mechanism for cAMP signaling with in the cAMP cascade. There are 2 members of the Epac family, Epac1 and Epac 2. Both proteins are multidomain proteins containing an autoinhibitory cAMP-binding domain that inhibits the catalytic region and a DEP domain (dishevelled, Egl-10 and pleckstrin homology domain) targeting the membrane anchors. EPAC2 has an additional cAMP-binding site in its N-terminus that binds cAMP with low affinity. EPAC1 mRNA is broadly expressed, with particularly high levels occurring in the thyroid, ovary, kidney and certain brain regions, whereas expression of EPAC2 mRNA appears to be restricted to the brain and adrenal glands. Epac 1 and Epac 2 also interact with light chain 2 (LC2) or MAP1A that serves as a scaffolding structure to stabilize the signal transduction complex. The Epac 1-selective antibodies were generated against unique antigenic sequences form near N-terminus and between RasGEFN and Ras GEF domains. The antibodies to Epac 1 are affinity purified over immobilized antigen based chromatography.