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CHP Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8625c

Specification

CHP Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q99653

CHP Antibody (Center) Blocking Peptide - Additional Information

Gene ID 11261

Other Names
Calcineurin B homologous protein 1, Calcineurin B-like protein, Calcium-binding protein CHP, Calcium-binding protein p22, EF-hand calcium-binding domain-containing protein p22, CHP1, CHP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8625c was selected from the Center region of human CHP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CHP Antibody (Center) Blocking Peptide - Protein Information

Name CHP1

Synonyms CHP

Function
Calcium-binding protein involved in different processes such as regulation of vesicular trafficking, plasma membrane Na(+)/H(+) exchanger and gene transcription. Involved in the constitutive exocytic membrane traffic. Mediates the association between microtubules and membrane-bound organelles of the endoplasmic reticulum and Golgi apparatus and is also required for the targeting and fusion of transcytotic vesicles (TCV) with the plasma membrane. Functions as an integral cofactor in cell pH regulation by controlling plasma membrane- type Na(+)/H(+) exchange activity. Affects the pH sensitivity of SLC9A1/NHE1 by increasing its sensitivity at acidic pH. Required for the stabilization and localization of SLC9A1/NHE1 at the plasma membrane. Inhibits serum- and GTPase-stimulated Na(+)/H(+) exchange. Plays a role as an inhibitor of ribosomal RNA

transcription by repressing the nucleolar UBF1 transcriptional activity. May sequester UBF1 in the nucleoplasm and limit its translocation to the nucleolus. Associates to the ribosomal gene promoter. Acts as a negative regulator of the calcineurin/NFAT signaling pathway. Inhibits NFAT nuclear translocation and transcriptional activity by suppressing the calcium- dependent calcineurin phosphatase activity. Also negatively regulates the kinase activity of the apoptosis-induced kinase STK17B. Inhibits both STK17B auto- and substrate-phosphorylations in a calcium-dependent manner.

Cellular Location
Nucleus {ECO:0000250|UniProtKB:P61023}. Cytoplasm {ECO:0000250|UniProtKB:P61023}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P61023}. Endomembrane system {ECO:0000250|UniProtKB:P61023}. Endoplasmic reticulum-Golgi intermediate compartment {ECO:0000250|UniProtKB:P61023}. Endoplasmic reticulum {ECO:0000250|UniProtKB:P61023}. Cell membrane. Membrane; Lipid- anchor. Note=Localizes in cytoplasmic compartments in dividing cells. Localizes in the nucleus in quiescent cells. Exported from the nucleus to the cytoplasm through a nuclear export signal (NES) and CRM1-dependent pathway. May shuttle between nucleus and cytoplasm. Localizes with the microtubule-organizing center (MTOC) and extends toward the periphery along microtubules. Associates with membranes of the early secretory pathway in a GAPDH-independent, N-myristoylation- and calcium-dependent manner. Colocalizes with the mitotic spindle microtubules. Colocalizes with GAPDH along microtubules. Colocalizes with SLC9A1 at the reticulum endoplasmic and plasma membrane. Colocalizes with STK17B at the plasma membrane {ECO:0000250|UniProtKB:P61023}

Tissue Location
Ubiquitously expressed. Has been found in fetal eye, lung, liver, muscle, heart, kidney, thymus and spleen

CHP Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

CHP Antibody (Center) Blocking Peptide - Images

CHP Antibody (Center) Blocking Peptide - Background

CHP is a phosphoprotein that binds to the Na+/H+ exchanger NHE1. This protein serves as an essential cofactor which supports the physiological activity of NHE family members and may play a role in the mitogenic regulation of NHE1. The protein shares similarity with calcineurin B and calmodulin and it is also known to be an endogenous inhibitor of calcineurin activity.

CHP Antibody (Center) Blocking Peptide - References

Ben Ammar,Y., et.al., Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 61 (PT 10),956-958 (2005)Lin,X., et.al., J. Biol. Chem. 274 (51), 36125-36131 (1999)