

**KIP2 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8158a****Specification**

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**KIP2 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [O75838](#)**KIP2 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 10518**Other Names**

Calcium and integrin-binding family member 2, Kinase-interacting protein 2, KIP 2, CIB2, KIP2

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8158a](/product/products/AP8158a) was selected from the N-term region of human KIP2 . 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.

**KIP2 Antibody (N-term) Blocking Peptide - Protein Information****Name** CIB2**Synonyms** KIP2**Function**

Calcium- and integrin-binding protein that plays a role in intracellular calcium homeostasis (By similarity). Acts as an auxiliary subunit of the sensory mechanoelectrical transduction (MET) channel in hair cells (By similarity). Essential for mechanoelectrical transduction (MET) currents in auditory hair cells and thereby required for hearing (By similarity). Regulates the function of hair cell mechanotransduction by controlling the distribution of transmembrane channel-like proteins TMC1 and TMC2, and by regulating the function of the MET channels in hair cells (By similarity). Required for the maintenance of auditory hair cell stereocilia bundle morphology and function and for hair-cell survival in the cochlea (By similarity). Critical for proper photoreceptor cell maintenance and function (By similarity). Plays a role in intracellular calcium homeostasis by decreasing ATP-induced calcium release (PubMed:<a

href="http://www.uniprot.org/citations/23023331" target="\_blank">23023331</a>, PubMed:<a href="http://www.uniprot.org/citations/26173970" target="\_blank">26173970</a>, PubMed:<a href="http://www.uniprot.org/citations/26426422" target="\_blank">26426422</a>).

#### **Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:Q9Z309}. Cell projection, stereocilium. Photoreceptor inner segment {ECO:0000250|UniProtKB:Q9Z309}. Cell projection, cilium, photoreceptor outer segment {ECO:0000250|UniProtKB:Q9Z309}. Cell membrane, sarcolemma {ECO:0000250|UniProtKB:Q9Z309}. Note=Colocalizes with ITGA7 at the myotendinous junctions (MTJ) and at the neuromuscular junctions (NMJ) (By similarity). Located mainly in stereocilia and at the apical surface of hair cells of the cochlea (By similarity). Localizes in the cuticular plate along and at the tip of the stereocilia of vestibular sensory hair cells (PubMed:26173970, PubMed:26426422) {ECO:0000250|UniProtKB:Q9Z309, ECO:0000269|PubMed:26173970, ECO:0000269|PubMed:26426422}

#### **Tissue Location**

Widely expressed (PubMed:23023331).

#### **KIP2 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **KIP2 Antibody (N-term) Blocking Peptide - Images**

#### **KIP2 Antibody (N-term) Blocking Peptide - Background**

DNA-dependent protein kinases (DNA-PK) play a role in the repair of double-strand DNA breaks and in the process of V(D)J recombination during lymphoid development. By EST database searching for sequences homologous to the DNA-PK gene KIP/CIB and 5-prime RACE, Seki, N et al. isolated a full-length cDNA, which they designated as KIP2, from a human fetal brain cDNA library. KIP2 encodes a deduced 187-amino acid protein with a predicted molecular mass of 22 kD. The KIP2 protein shares 46%, 39%, and 30% sequence identity with the calcium-binding proteins KIP/CIB, calcineurin B and calmodulin respectively. KIP2 contains two EF-hand motifs and a helix-loop-helix motif involved in coordinating the calcium ion, indicating that KIP2 may also bind calcium. KIP2 is ubiquitously expressed in various human tissues.

#### **KIP2 Antibody (N-term) Blocking Peptide - References**

Seki, N., et al., Biochim. Biophys. Acta 1444(1):143-147 (1999).