

## Recombinant CIB2 Monoclonal Antibody

catalog number: **AN300426P**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

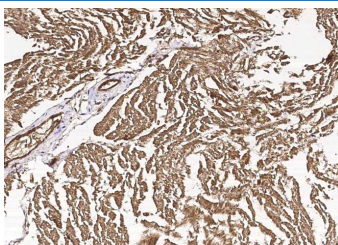
### Description

<b>Reactivity</b>	Human
<b>Immunogen</b>	Recombinant Human CIB2 protein
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG
<b>Clone</b>	3G12
<b>Purification</b>	Protein A
<b>Buffer</b>	0.2 µm filtered solution in PBS

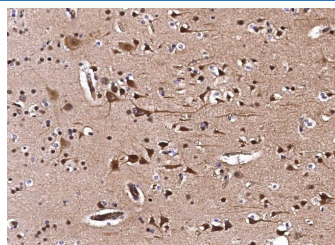
### Applications Recommended Dilution

<b>IHC-P</b>	1:1000-1:4000
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### Data



Immunohistochemistry of paraffin-embedded human heart using CIB2 Monoclonal Antibody at dilution of 1:2000.



Immunohistochemistry of paraffin-embedded human brain using CIB2 Monoclonal Antibody at dilution of 1:2000.

### Preparation & Storage

<b>Storage</b>	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Ice bag

### Background

Calcium and integrin-binding protein 2 (CIB2) belongs to a protein family with four known members, CIB1 through CIB4, which are characterized by multiple calcium-binding EF-hand domains. Sensorineural hearing loss is genetically heterogeneous. The mutations in CIB2, which encodes a calcium- and integrin-binding protein, are associated with nonsyndromic deafness (DFNB48) and Usher syndrome type 1J (USH1J). Furthermore, in zebrafish and *Drosophila melanogaster*, CIB2 is essential for the function and proper development of hair cells and retinal photoreceptor cells. We also show that CIB2 is a new member of the vertebrate Usher interactome. Variants in CIB2 can underlie either Usher syndrome type I (USH1J) or nonsyndromic hearing impairment (NSHI) (DFNB48). CIB2 is widely expressed in various human and animal tissues, mainly in skeletal muscle, nervous tissue, inner ear, and retina. The CIB2 protein is responsible for maintaining Ca(2+) homeostasis in cells and interacting with integrins-transmembrane receptors essential for cell adhesion, migration, and activation of signaling pathways. Calcium signaling pathway is crucial for signal transduction in the inner ear, and integrins regulate hair cell differentiation and maturation of the stereocilia.

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