

CIB2 Protein, Human (His)

Cat. No.:	HY-P75675
Synonyms:	Calcium and integrin-binding family member 2; Kinase-interacting protein 2; KIP2
Species:	Human
Source:	E. coli
Accession:	O75838-1 (M1-I187)
Gene ID:	10518
Molecular Weight:	Approximately 26 kDa

PROPERTIES

AA Sequence	<p>M G N K Q T I F T E E Q L D N Y Q D C T F F N K K D I L K L H S R F Y E L A P N</p> <p>L V P M D Y R K S P I V H V P M S L I I Q M P E L R E N P F K E R I V A A F S E</p> <p>D G E G N L T F N D F V D M F S V L C E S A P R E L K A N Y A F K I Y D F N T D</p> <p>N F I C K E D L E L T L A R L T K S E L D E E E V V L V C D K V I E E A D L D G</p> <p>D G K L G F A D F E D M I A K A P D F L S T F H I R I</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 200 mM NaCl, 500 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>CIB2 protein, a calcium- and integrin-binding protein, plays a crucial role in intracellular calcium homeostasis and functions as an auxiliary subunit of the sensory mechano-electrical transduction (MET) channel in hair cells. Its essentiality for mechano-electrical transduction currents in auditory hair cells underscores its significance in hearing. CIB2 regulates the function of hair cell mechanotransduction by influencing the distribution of transmembrane channel-like proteins TMC1 and TMC2 and by modulating the activity of MET channels in hair cells. Moreover, it is indispensable for maintaining the morphology and function of auditory hair cell stereocilia bundles and ensuring the survival of hair cells in the cochlea. Additionally, CIB2 plays a critical role in the maintenance and function of photoreceptor cells. Its involvement in</p>
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intracellular calcium homeostasis is manifested through its ability to decrease ATP-induced calcium release. CIB2 exists as a monomer or homodimer and interacts with various proteins, including WHRN, MYO7A, ITGA2B, ITGA7, TMC1, and TMC2, with these interactions often being calcium and magnesium-dependent.

Caution: Product has not been fully validated for medical applications. For research use only.

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