

14-3-3 beta Protein, Human (His)

Cat. No.:	HY-P700304
Synonyms:	KCIP-1; 14-3-3 protein beta/alpha; GW128; Protein 1054; YWHAB
Species:	Human
Source:	E. coli
Accession:	P31946 (M1-N246)
Gene ID:	7529
Molecular Weight:	Approximately 29 kDa

PROPERTIES

AA Sequence	<p> M T M D K S E L V Q K A K L A E Q A E R Y D D M A A A M K A V T E Q G H E L S N E E R N L L S V A Y K N V V G A R R S S W R V I S S I E Q K T E R N E K K Q Q M G K E Y R E K I E A E L Q D I C N D V L E L L D K Y L I P N A T Q P E S K V F Y L K M K G D Y F R Y L S E V A S G D N K Q T T V S N S Q Q A Y Q E A F E I S K K E M Q P T H P I R L G L A L N F S V F Y Y E I L N S P E K A C S L A K T A F D E A I A E L D T L N E E S Y K D S T L I M Q L L R D N L T L W T S E N Q G D E G D A G E G E N </p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
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>The 14-3-3 beta protein serves as an adapter implicated in the regulation of a wide spectrum of both general and specialized signaling pathways. Recognizing phosphoserine or phosphothreonine motifs, it binds to numerous partners, modulating the activity of the binding partner upon interaction. It acts as a negative regulator of osteogenesis by blocking the nuclear translocation of the phosphorylated form of SRPK2, counteracting its stimulatory effect on cyclin D1 expression, and thereby preventing neuronal apoptosis induced by SRPK2. Additionally, 14-3-3 beta negatively regulates signaling cascades</p>
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that activate MAP kinases through AKAP13. Existing as a homodimer, it interacts with various proteins, including SAMSN1, PRKCE, AKAP13, SSH1, TORC2/CRTC2, ABL1, ROR2, GAB2, YAP1, SRPK2, PKA-phosphorylated AANAT, MYO1C, SIRT2, DAPK2, PI4KB, TBC1D22A, TBC1D22B, SOS1, YWHAB, SLITRK1, SYNPO2, RIPOR2, MARK2, MARK3, TESK1, MEFV, HDAC4, and ADAM22. These interactions highlight the diverse roles of 14-3-3 beta in various cellular processes and signaling pathways.

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

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