JTB Protein, Human (HEK293, Fc)

Cat. No.:	HY-P75896
Synonyms:	Jumping translocation breakpoint protein; Prostate androgen-regulated protein; JTB; HSPC222
Species:	Human
Source:	HEK293
Accession:	O76095-1 (E31-L105)
Gene ID:	10899
Molecular Weight:	Approximately 39 kDa due to the glycosylation

PROPERTIES

AA Sequence	E A P V Q E E K L S A S T S N L P C W L V E E F V V A E E C S P C S N F R A K T T P E C G P T G Y V E K I T C S S S K R N E F K S C R S A L M E Q R L
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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	JTB protein is indispensable for the normal progression of cytokinesis during mitosis and plays a crucial role in regulating cell proliferation. It is implicated as a potential component of the chromosomal passenger complex (CPC), a pivotal regulator of mitosis with essential functions at the centromere. The CPC complex is instrumental in ensuring accurate chromosome alignment and segregation, as well as participating in chromatin-induced microtubule stabilization and spindle assembly. JTB interacts with key components of the CPC, including AURKA, AURKB, BIRC5, and INCENP, potentially influencing AURKB activity. Moreover, JTB exhibits anti-apoptotic properties, inhibiting apoptosis induced by TGFB1, and its overexpression is associated with mitochondrial changes, leading to mitochondrial swelling and reduced membrane potential. These multifaceted roles highlight JTB's involvement in intricate cellular processes crucial for mitotic fidelity and cell survival.

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

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