VAPB Protein, Human (His)

Cat. No.:	HY-P71044
Synonyms:	Vesicle-associated membrane protein-associated protein B/C; VAMP-B/VAMP-C; VAMP-associated protein B/C; VAP-B/VAP-C
Species:	Human
Source:	E. coli
Accession:	O95292 (A2-P132)
Gene ID:	9217
Molecular Weight:	Approximately 17.0 kDa

PROPERTIES

AA Sequence	A K V E Q V L S L E P Q H E L K F R G P F T D V V T T N L K L G N P T D R N V C F K V K T T A P R R Y C V R P N S G I I D A G A S I N V S V M L Q P F D Y D P N E K S K H K F M V Q S M F A P T D T S D M E A V W K E A K P E D L M D S K L R C V F E L P A E N D K P
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 100 mM NaCl, pH 8.0.
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	VAPB Protein, an endoplasmic reticulum-anchored protein, plays a crucial role in the formation of contact sites between the endoplasmic reticulum (ER) and late endosomes through its interaction with STARD3 in a phosphorylation-dependent manner of the FFAT motif. Beyond its structural involvement, VAPB contributes to the endoplasmic reticulum unfolded protein response (UPR) by inducing ERN1/IRE1 activity. Additionally, it is implicated in the regulation of cellular calcium homeostasis. VAPB exists as a homodimer and forms heterodimers with VAPA. Its interactome extends to include proteins such as VAMP1, VAMP2, ZFYVE27, RMDN3, KIF5A, STARD3, STARD3NL, CERT1, PLEKHA3, SACM1L, and VPS13A, underscoring its versatility in participating in diverse cellular processes. The interactions with RB1CC1, MIGA2, OSBPL1A, KCNB1, and KCNB2, involving phosphorylated FFAT motifs, highlight the intricate regulatory networks in which VAPB is engaged. This

	comprehensive network of interactions emphasizes the pivotal role of VAPB in coordinating essential cellular processes at the ER-endosome interface.

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