

BIN1 Protein, Human (His)

Cat. No.:	HY-P74380
Synonyms:	Myc box-dependent-interacting protein 1; BIN1; AMPHL; Amphiphysin II
Species:	Human
Source:	E. coli
Accession:	O00499-10 (M1-P424)
Gene ID:	274
Molecular Weight:	Approximately 52 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 10% Glycerol, 1 mM DDT, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
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.
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 BIN1 Protein plays a crucial role in the regulation of plasma membrane curvature, shaping, and remodeling. In muscle cells, it is indispensable for the formation of T-tubules, which are tubular invaginations of the plasma membrane critical for depolarization-contraction coupling. Acting as a negative regulator of endocytosis, BIN1 is also involved in intracellular vesicle sorting and modulates BACE1 trafficking, influencing amyloid-beta production. In neuronal circuits, its role in endocytosis regulation may impact the internalization of PHF-tau aggregates. Furthermore, BIN1 is implicated in the regulation of MYC activity, influencing cell proliferation, and exhibits actin bundling activity, stabilizing actin filaments against depolymerization. BIN1 forms a heterodimer with AMPH, binds to SH3GLB1, interacts with DNM1, SYNJ1, DNM2, AP2A2, AP2B1, MYC, BIN2, SNX4, and BACE1, indicating its involvement in diverse cellular processes and protein-protein interactions.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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