

## HN1 Protein, Mouse (His)

Cat. No.:	HY-P74880
Synonyms:	Jupiter microtubule associated homolog 1; Jpt1; Hn1
Species:	Mouse
Source:	E. coli
Accession:	P97825 (M1-G154)
Gene ID:	15374
Molecular Weight:	Approximately 24 kDa

### PROPERTIES

AA Sequence	<pre> MTTTTTFKGV   DPNSRNSSRV   LRPPGGGSNF   SLGFDEPAEQ PVRKNKMASN   IFGTPEENPP   SWAKSAGSKS   SGGREDSESP GTQRSNSSEA   SSGDFLDLKG   EGDMHENVDT   DFQANLAQME EKPVPAAPVP   SPVAPAPVPS   RRNPPGGKSS   LVLG           </pre>
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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> 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>HN1 protein emerges as a key regulator in cellular processes, exerting a negative modulatory effect on AKT-mediated GSK3B signaling. It functions by inducing the phosphorylation and subsequent degradation of CTNNB1 at 'Ser-33.' This action is achieved through the suppression of the inhibitory 'Ser-9' phosphorylation of GSK3B, thereby dampening the activity of the APC:CTNNB1:GSK3B complex and impeding its interaction with CDH1/E-cadherin in adherent junctions. Beyond its role in cell adhesion, HN1 participates in the regulation of cell cycle dynamics, as evidenced by its impact on these fundamental cellular processes. Moreover, HN1 exhibits an inhibitory role in the AR-signaling pathway, contributing to the proteasomal degradation of the receptor. Notably, HN1 engages in interactions with the APC:CTNNB1:GSK3B complex, specifically with the inactive form of GSK3B phosphorylated at 'Ser-9,' highlighting its involvement in intricate cellular signaling networks.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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