

CNPY3/PRAT4A Protein, Human (HEK293, Fc)

Cat. No.:	HY-P75680
Synonyms:	Protein canopy homolog 3; CNPY3; CTG4A; ERDA5; PRAT4A; TNRC5
Species:	Human
Source:	HEK293
Accession:	Q9BT09-1 (G31-P274)
Gene ID:	10695
Molecular Weight:	Approximately 60-70 kDa due to the glycosylation.

PROPERTIES

AA Sequence	G P S Q A G A E E N D W V R L P S K C E V C K Y V A V E L K S A F E E T G K T K E V I G T G Y G I L D Q K A S G V K Y T K S D L R L I E V T E T I C K R L L D Y S L H K E R T G S N R F A K G M S E T F E T L H N L V H K G V K V V M D I P Y E L W N E T S A E V A D L K K Q C D V L V E E F E E V I E D W Y R N H Q E E D L T E F L C A N H V L K G K D T S C L A E Q W S G K K G D T A A L G G K K S K K K S S R A K A A G G R S S S S K Q R K E L G G L E G D P S P E E D E G I Q K A S P L T H S P
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 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	The CNPY3/PRAT4A protein acts as a Toll-like receptor (TLR)-specific co-chaperone for HSP90B1, playing a crucial role in the proper folding of TLRs, with the exception of TLR3. This function is essential for the controlled exit of TLRs from the endoplasmic reticulum, thereby influencing both innate and adaptive immune responses. CNPY3/PRAT4A interacts with HSP90B1, and this interaction is disrupted in the presence of ATP. Furthermore, it interacts with multiple TLRs, including TLR1, TLR2, TLR4, and TLR9, with the strongest interaction observed with TLR4. These interactions highlight the intricate
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regulatory role of CNPY3/PRAT4A in TLR folding and function, shedding light on its importance in the orchestration of immune responses.

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

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