PRNP/CD230 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P74619
Synonyms:	Major prion protein; CD230; ALTPRP; PRIP; PRP
Species:	Human
Source:	HEK293
Accession:	P04156 (K23-G229)
Gene ID:	5621
Molecular Weight:	Approximately 57.4 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. 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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	PRNP/CD230, while its primary physiological function remains unclear, is implicated in various neuronal processes, including neuronal development and synaptic plasticity. Additionally, it may play a crucial role in maintaining the myelin sheath of neurons and promoting myelin homeostasis by acting as an agonist for the ADGRG6 receptor. The protein's involvement in iron uptake and homeostasis further underscores its multifaceted functions. Soluble oligomers of PRNP exhibit toxicity to neuroblastoma cells, inducing apoptosis in vitro. Association with GPC1, facilitated by heparan sulfate chains, targets PRNP to lipid rafts and contributes to Cu(2+) or Zn(2+) availability for the ascorbate-mediated GPC1 deaminase degradation of its heparan sulfate side chains. PRNP exists both as a monomer and homodimer, with a propensity to aggregate into amyloid fibrils, possibly influenced by copper binding. Notably, PRNP interacts with various proteins, including GRB2, APP, ERI3/PRNPIP, SYN1, and ADGRG6, suggesting a complex network of molecular interactions.

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