PRNP/CD230 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P78023
Synonyms:	Major prion protein; PrP; ALTPRP; PRIP; PRP; PRNP
Species:	Mouse
Source:	HEK293
Accession:	P04925 (K23-S230)
Gene ID:	19122
Molecular Weight:	60-68 kDa

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	PRNP/CD230 protein, while its primary physiological function remains unclear, is implicated in various cellular processes, suggesting potential roles in neuronal development, synaptic plasticity, and neuronal myelin sheath maintenance. It may contribute to myelin homeostasis by acting as an agonist for the ADGRG6 receptor and participating in iron uptake and homeostasis. Soluble oligomers of PRNP are demonstrated to be toxic to cultured neuroblastoma cells, inducing apoptosis in vitro. Association with GPC1, mediated by its heparan sulfate chains, directs PRNP to lipid rafts and provides Cu(2+) or Zn(2+) for the ascorbate-mediated GPC1 deaminase degradation of its heparan sulfate side chains. The protein exhibits a monomeric state and can form homodimers, displaying a propensity to aggregate into amyloid fibrils characterized by a cross-beta spine. Copper binding may promote the oligomerization of PRNP. Interactions with GRB2, APP, ERI3/PRNPIP, SYN1, and ADGRG6 highlight its involvement in diverse cellular processes, while mislocalized cytosolically exposed PrP engages with MGRN1, altering MGRN1 subcellular location and causing lysosomal enlargement. Additional interactions with KIAA1191 and APP further emphasize the versatility of PRNP in cellular functions.

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

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