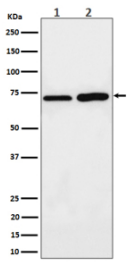
PREPL Antibody / Prolyl endopeptidase-like protein [clone 30P79] (FY13002)

Catalog No.	Formulation	Size
FY13002	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P79
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q4J6C6
Applications	Western Blot : 1:500-1:2000 Immunohistochemistry : 1:50-1:200 Immunocytochemistry/Immunofluorescence : 1:50-1:200 Immunoprecipitation : 1:50
Limitations	This PREPL antibody is available for research use only.



Western blot analysis of PREPL expression in (1) human MCF7 cell lysate; (2) rat C6 cell lysate using PREPL antibody. Predicted molecular weight: 74-84 kDa (multiple isoforms).

Description

PREPL antibody detects Prolyl endopeptidase-like protein, encoded by the PREPL gene. This protein belongs to the prolyl oligopeptidase family of serine peptidases, but unlike many of its relatives, PREPL is thought to have limited or absent catalytic activity. Instead, it is believed to function as a scaffolding or regulatory protein influencing peptide processing, vesicle trafficking, and synaptic transmission. PREPL antibody provides an important reagent for studying rare genetic disease, peptide metabolism, and neurological function.

Mutations in PREPL cause a rare genetic disorder known as hypotonia-cystinuria syndrome, characterized by neonatal hypotonia, muscle weakness, and cystinuria due to loss of function in both PREPL and SLC3A1. Research using PREPL antibody has revealed that absence of Prolyl endopeptidase-like protein disrupts normal vesicle trafficking and neurotransmitter release, contributing to hypotonia and neurological deficits. Although the precise enzymatic role of PREPL remains unclear, its presence in synaptic vesicles suggests it contributes to regulated peptide handling and signaling in the nervous system.

Beyond hypotonia-cystinuria syndrome, alterations in PREPL expression have been studied in broader contexts such as growth, appetite regulation, and endocrine function. Research with PREPL antibody has demonstrated its expression in brain and endocrine tissues, where it may modulate hormone release and metabolic signaling. Some studies suggest that PREPL deficiency influences growth hormone secretion, highlighting its potential role in development. These findings make PREPL an interesting target in both rare disease and general physiology.

PREPL antibody is applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting demonstrates tissue specific expression, especially in brain and muscle. Immunohistochemistry highlights its distribution in endocrine and neuronal tissues, while immunofluorescence confirms subcellular localization to vesicular structures. Together, these methods provide insights into PREPL's role in vesicle biology and signaling. Functional studies supported by PREPL antibody include knockout models where absence of PREPL reveals physiological consequences at cellular and organismal levels.

By supplying validated PREPL antibody reagents, NSJ Bioreagents supports research into neurobiology, peptide regulation, and rare disease. Detection of Prolyl endopeptidase-like protein provides an essential tool for understanding how peptide handling and vesicle trafficking affect health and disease.

Application Notes

Optimal dilution of the PREPL antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human PREPL was used as the immunogen for the PREPL antibody.

Storage

Store the PREPL antibody at -20oC.