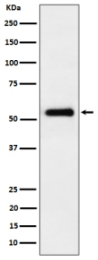
PEPD Antibody / Peptidase D [clone 30P28] (FY12059)

Catalog No.	Formulation	Size
FY12059	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
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30P28
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	P12955
Applications	Western blot: 1:500-1:2000
Limitations	This PEPD antibody is available for research use only.



PEPD Antibody WB. Western blot analysis of PEPD expression in HepG2 cell lysate using PEPD antibody. Predicted molecular weight ~55 kDa.

Description

PEPD antibody recognizes peptidase D, a cytosolic metallopeptidase responsible for hydrolyzing dipeptides with proline at the carboxyl terminus. This enzyme plays an important role in collagen metabolism, recycling proline-containing peptides into free amino acids for cellular reuse. PEPD is expressed widely in human tissues, particularly in fibroblasts

and connective tissues, reflecting its role in extracellular matrix maintenance.

Research using PEPD antibody has revealed multiple functional roles beyond collagen turnover. PEPD acts as a ligand for epidermal growth factor receptor (EGFR), activating signaling cascades that regulate cell growth and survival. This dual enzymatic and signaling capacity highlights PEPD as a multifunctional protein. In cancer biology, PEPD has been linked to tumor progression, where altered expression can support both metabolic adaptation and proliferative signaling. Elevated levels of PEPD have been reported in several tumor types, suggesting its potential as a biomarker.

In hereditary diseases, mutations in PEPD cause prolidase deficiency, a rare autosomal disorder characterized by impaired collagen recycling, chronic skin ulcers, developmental delay, and immune dysfunction. Detecting PEPD levels with antibodies is important for research into this disorder as well as related connective tissue diseases. PEPD has also been associated with cardiovascular disease, where its enzymatic activity influences extracellular matrix remodeling and vascular health.

Validated antibodies against PEPD are applied in western blot, immunohistochemistry, ELISA, and immunofluorescence. These reagents enable quantification of protein expression, detection of tissue-specific localization, and evaluation of signaling roles in EGFR-related pathways. Clone-based PEPD antibodies provide consistency required for both mechanistic studies and biomarker research.

NSJ Bioreagents provides this PEPD antibody for applications in metabolism, connective tissue biology, oncology, and rare disease research.

Explore additional Metabolism Antibodies targeting amino acid metabolism enzymes, collagen turnover pathways, and cellular metabolic signaling proteins.

Application Notes

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

Immunogen

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

Storage

Store the PEPD antibody at -20oC.

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