

Product Name: KD-Validated Peptidase D Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA01497

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 54.5kDa

Antigen Information

Gene Name	PEPD
Alternative Names	PEPD; Peptidase D; Xaa-Pro Dipeptidase; Imidodipeptidase; Proline Dipeptidase; X-Pro Dipeptidase; Prolidase; Testicular Tissue Protein Li 138; Aminoacyl-L-Proline Hydrolase; EC 3.4.13.9; PROLIDASE; PRD
Gene ID	5184.0
SwissProt ID	P12955
Immunogen	A synthesized peptide derived from human PRD

Background

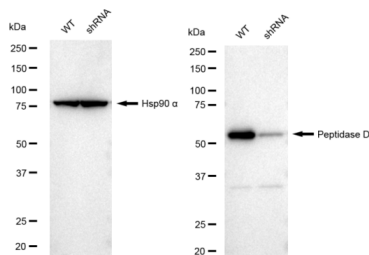
This gene encodes a member of the peptidase family. The protein forms a homodimer that hydrolyzes dipeptides or tripeptides with C-terminal proline or hydroxyproline residues. The enzyme serves an important role in the recycling of proline, and may be

rate limiting for the production of collagen. Mutations in this gene result in prolidase deficiency, which is characterized by the excretion of large amount of di- and tri-peptides containing proline. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Oct 2009]

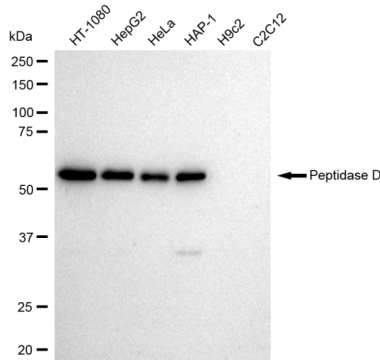
Research Area

Signal Transduction,Cell Biology,Metabolism

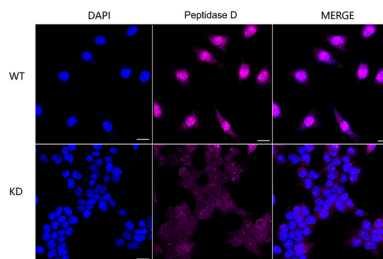
Image Data



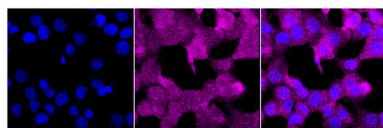
Western blotting analysis using Peptidase D antibody (KVA01497). Peptidase D expression in wild type (WT) and peptidase D shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Peptidase D antibody (KVA01497, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



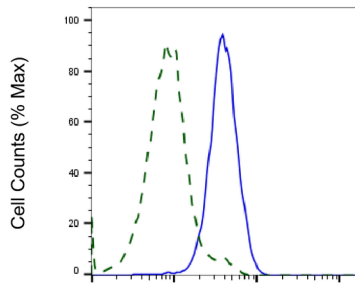
Western blotting analysis using Peptidase D antibody (KVA01497). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Peptidase D antibody (KVA01497, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



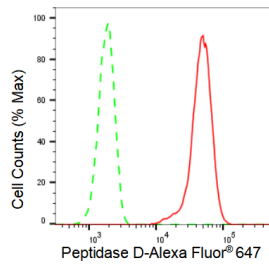
Immunocytochemical staining of HeLa cells using Peptidase D antibody (KVA01497, 1:1,000), Top panel: wild-type (WT); Bottom panel: Peptidase D shRNA knockdown (KD). Nuclei were stained blue with DAPI; Peptidase D was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with Peptidase D antibody(KVA01497, 1:1,000) . Nuclei were stained blue with DAPI; Peptidase D was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Peptidase D-Alexa Fluor® 647



Validation of Peptidase D knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Peptidase D antibody (KVA01497, 1:2,000) and analyzed using CytoFLEX.

Flow cytometric analysis of Peptidase D expression in HT-1080 cells using Peptidase D antibody (KVA01497, 1:2,000). Green, isotype control; red, Peptidase D.