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Product datasheet for AP12074PU-N

USP33 (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ELISA: 1/1,000. Western Blot: 1/100-1/500.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of human VDU1-II.
Specificity:	This antibody is specific to USP33/VDU1 (C-term).
Formulation:	PBS with 0.09% (W/V) Sodium Azide as preservative. State: Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Protein G Chromatography, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	ubiquitin specific peptidase 33
Database Link:	Entrez Gene 23032 Human Q8TEY7

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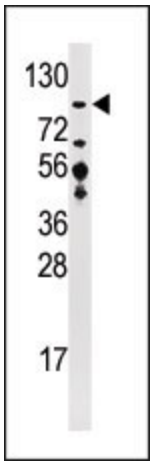
Background: Type 2 iodothyronine deiodinase (D2) is an integral membrane selenoenzyme that stimulates the pro-hormone thyroxine (T4) and supplies the majority of the 3,5,3'-triiodothyronine (T3) essential for brain development.1 T4 catalysis accelerates selective conjugation to ubiquitin and thereby renders D2 inactive, a posttranslational feedback mechanism used to maintain acceptable T3 levels.2,3 Ub-D2 was the first recognized substrate for von Hippel?Lindau protein?interacting (pVHL-interacting) deubiquitinating enzyme-1 (VDU1).4 VDU proteins colocalize with D2 in the endoplasmic reticulum, and their coexpression provides D2 resistance to degradation. VDU1 expression is substantially upregulated in brown adipocytes by norepinephrine or cold exposure, further amplifying D2 activity. VDU1 and VDU2 are coexpressed with D2 in many human tissues, including brain, heart, and skeletal muscle, suggesting potential roles in neurological development, cardiac function, and energy management, in addition to thermal homeostasis.VDU1- or VDU2-catalyzed deubiquitination recycles inactive Ub-D2 to its active deubiquitinated form, circumventing the proteasomal degradation pathway. Thus, Ub-D2 can be either reactivated or degraded, with the balance between these two processes influenced by VDU activity.VDU1-catalyzed D2 deubiquitination may be an important participant in the adaptive mechanism that regulates thyroid hormone action. The reversible ubiquitination-dependent mechanism regulating D2 activity permits highly responsive control of thyroid hormone activation.5,6

Synonyms: Ubiquitin carboxyl-terminal hydrolase 33, KIAA1097

Note: **Predicted Molecular weight:** 106752 Da

Product images:



Western blot analysis of anti-VDU1 (C-term) Pab in T47D cell line lysate (35ug/lane). VDU1 (arrow) was detected using the purified Pab.