

USP20 / VDU2 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS11091**Specification**

USP20 / VDU2 Antibody (Internal) - Product Information

Application	IHC
Primary Accession	O9Y2K6
Reactivity	Human, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	102kDa KDa

USP20 / VDU2 Antibody (Internal) - Additional Information**Gene ID** 10868**Other Names**

Ubiquitin carboxyl-terminal hydrolase 20, 3.4.19.12, Deubiquitinating enzyme 20, Ubiquitin thioesterase 20, Ubiquitin-specific-processing protease 20, VHL-interacting deubiquitinating enzyme 2, hVDU2, USP20, KIAA1003, LSFR3A, VDU2

Target/Specificity

Human USP20. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

USP20 / VDU2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

USP20 / VDU2 Antibody (Internal) - Protein Information**Name** USP20**Synonyms** KIAA1003, LSFR3A, VDU2**Function**

Deubiquitinating enzyme that plays a role in many cellular processes including autophagy, cellular antiviral response or membrane protein biogenesis (PubMed:27801882, PubMed:29487085). Attenuates TLR4- mediated NF-kappa-B signaling by cooperating with beta-arrestin-2/ARRB2 and inhibiting TRAF6 autoubiquitination (PubMed:26839314). Promotes cellular antiviral responses by deconjugating 'Lys-33' and 'Lys-48'- linked ubiquitination of STING1 leading to its stabilization (PubMed:<a

[27801882](http://www.uniprot.org/citations/27801882)). Plays an essential role in autophagy induction by regulating the ULK1 stability through deubiquitination of ULK1 (PubMed: [29487085](http://www.uniprot.org/citations/29487085)). Acts as a positive regulator for NF-kappa-B activation by TNF-alpha through deubiquitinating 'Lys-48'-linked polyubiquitination of SQSTM1, leading to its increased stability (PubMed: [32354117](http://www.uniprot.org/citations/32354117)). Acts as a regulator of G-protein coupled receptor (GPCR) signaling by mediating the deubiquitination beta-2 adrenergic receptor (ADRB2) (PubMed: [19424180](http://www.uniprot.org/citations/19424180)). Plays a central role in ADRB2 recycling and resensitization after prolonged agonist stimulation by constitutively binding ADRB2, mediating deubiquitination of ADRB2 and inhibiting lysosomal trafficking of ADRB2. Upon dissociation, it is probably transferred to the translocated beta-arrestins, possibly leading to beta-arrestins deubiquitination and disengagement from ADRB2 (PubMed: [19424180](http://www.uniprot.org/citations/19424180)). This suggests the existence of a dynamic exchange between the ADRB2 and beta-arrestins. Deubiquitinates DIO2, thereby regulating thyroid hormone regulation. Deubiquitinates HIF1A, leading to stabilize HIF1A and enhance HIF1A-mediated activity (PubMed: [15776016](http://www.uniprot.org/citations/15776016)). Deubiquitinates MCL1, a pivotal member of the anti- apoptotic Bcl-2 protein family to regulate its stability (PubMed: [35063767](http://www.uniprot.org/citations/35063767)). Within the endoplasmic reticulum, participates with USP33 in the rescue of post-translationally targeted membrane proteins that are inappropriately ubiquitinated by the cytosolic protein quality control in the cytosol (PubMed: [33792613](http://www.uniprot.org/citations/33792613)).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q8C6M1}. Endoplasmic reticulum. Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome

Volume

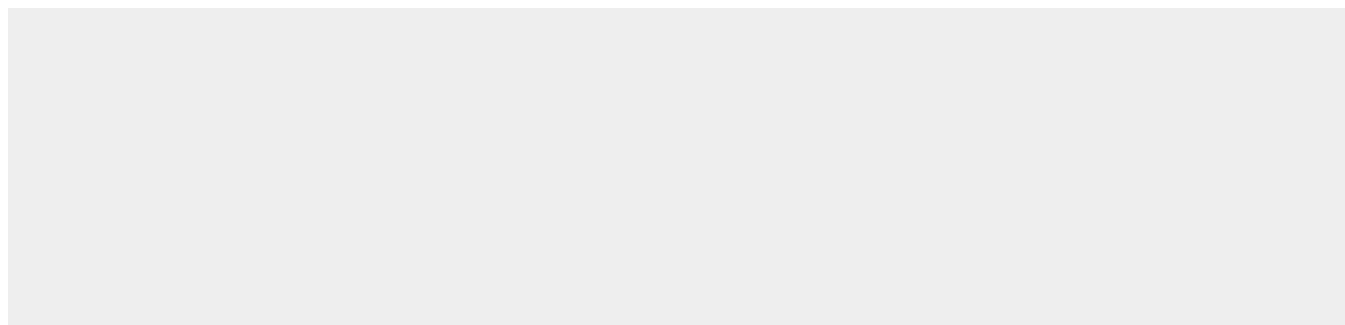
50 µl

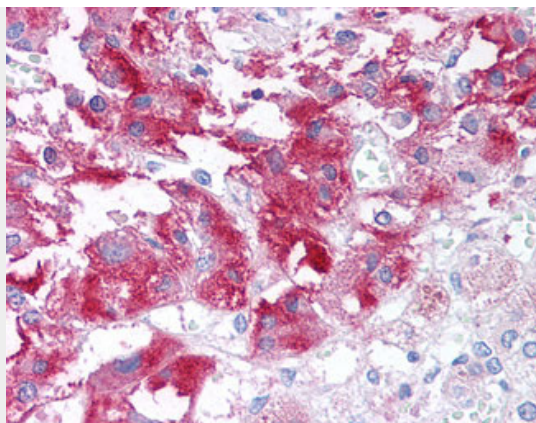
USP20 / VDU2 Antibody (Internal) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

USP20 / VDU2 Antibody (Internal) - Images





Anti-USP20 antibody ALS11091 IHC of human adrenal medulla.

USP20 / VDU2 Antibody (Internal) - Background

Deubiquitinating enzyme involved in beta-2 adrenergic receptor (ADRB2) recycling. Acts as a regulator of G-protein coupled receptor (GPCR) signaling by mediating the deubiquitination beta-2 adrenergic receptor (ADRB2). Plays a central role in ADRB2 recycling and resensitization after prolonged agonist stimulation by constitutively binding ADRB2, mediating deubiquitination of ADRB2 and inhibiting lysosomal trafficking of ADRB2. Upon dissociation, it is probably transferred to the translocated beta-arrestins, possibly leading to beta-arrestins deubiquitination and disengagement from ADRB2. This suggests the existence of a dynamic exchange between the ADRB2 and beta-arrestins. Deubiquitinates DIO2, thereby regulating thyroid hormone regulation. Deubiquitinates HIF1A, leading to stabilize HIF1A and enhance HIF1A-mediated activity. Mediates deubiquitination of both 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains.

USP20 / VDU2 Antibody (Internal) - References

Li Z.,et al.Biochem. Biophys. Res. Commun. 294:700-709(2002).
Nagase T.,et al.DNA Res. 6:63-70(1999).
Humphray S.J.,et al.Nature 429:369-374(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Gilley J.,et al.Hum. Mol. Genet. 8:1313-1320(1999).