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C20orf116 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI13079

Product Information

Application	WB
Primary Accession	Q96HY6
Other Accession	NM_023935, NP_076424
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35611

Additional Information

Gene ID	65992
Alias Symbol	MGC2592, dJ1187M17.3, UFBP1, C20orf116
Other Names	DDRGK domain-containing protein 1, UFM1-binding and PCI domain-containing protein 1, DDRGK1 (HGNC:16110)
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-C20orf116 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	C20orf116 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DDRGK1 {ECO:0000303|PubMed:20228063, ECO:0000312|HGNC:HGNC:16110}
Function	Component of the UFM1 ribosome E3 ligase (UREL) complex, a multiprotein complex that catalyzes ufmylation of endoplasmic reticulum-docked proteins (PubMed:30626644, PubMed:32160526, PubMed:35753586, PubMed:36121123, PubMed:36543799, PubMed:37595036, PubMed:37795761, PubMed:38383785, PubMed:38383789). The UREL complex plays a key role in ribosome recycling by mediating mono-ufmylation of the RPL26/uL24 subunit of the 60S ribosome following ribosome dissociation: ufmylation weakens the junction between post-termination 60S subunits and SEC61 translocons, promoting release and recycling of the large

ribosomal subunit from the endoplasmic reticulum membrane (PubMed:38383785, PubMed:38383789). Ufmylation of RPL26/uL24 and subsequent 60S ribosome recycling either take place after normal termination of translation or after ribosome stalling during cotranslational translocation at the endoplasmic reticulum (PubMed:37595036, PubMed:38383785, PubMed:38383789). Within the UREL complex, DDRGK1 tethers the complex to the endoplasmic reticulum membrane to restrict its activity to endoplasmic reticulum-docked ribosomes and acts as an ufmylation 'reader': following RPL26/uL24 ufmylation, DDRGK1 specifically binds to ufmylated RPL26/uL24 via its UFIM motif, resulting in stable association between the 60S ribosome and the UREL complex, followed by dissociation of the 60S ribosome subunit from the endoplasmic reticulum membrane (PubMed:36121123, PubMed:37595036, PubMed:38383785, PubMed:38383789). The UREL complex is also involved in reticulophagy in response to endoplasmic reticulum stress by promoting ufmylation of proteins such as CYB5R3 and RPN1, thereby promoting lysosomal degradation of ufmylated proteins (PubMed:32160526, PubMed:36543799). Ufmylation-dependent reticulophagy inhibits the unfolded protein response (UPR) by regulating ERN1/IRE1- alpha stability (PubMed:28128204, PubMed:32160526). Acts as a regulator of immunity by promoting differentiation of B-cells into plasma cells: acts by promoting expansion of the endoplasmic reticulum and regulating the unfolded protein response (UPR) (By similarity). May also be required for TRIP4 ufmylation (PubMed:25219498). May play a role in NF-kappa-B-mediated transcription through regulation of the phosphorylation and the degradation of NFKBIA, the inhibitor of NF- kappa-B (PubMed:23675531). Plays a role in cartilage development through SOX9, inhibiting the ubiquitin-mediated proteasomal degradation of this transcriptional regulator (PubMed:28263186). Required for stabilization and ufmylation of ATG9A (By similarity).

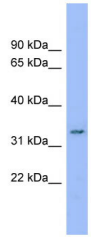
Cellular Location Endoplasmic reticulum membrane; Single-pass membrane protein

Tissue Location Widely expressed (at protein level). In the brain, highest levels in medulla oblongata, followed by cerebral cortex, cerebellum and frontal lobe.

References

Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Deloukas P.,et al.Nature 414:865-871(2001).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Tatsumi K.,et al.J. Biol. Chem. 285:5417-5427(2010).
Wu J.,et al.J. Biol. Chem. 285:15126-15136(2010).

Images



WB Suggested Anti-C20orf116 Antibody Titration: 0.2-1 µg/ml
Positive Control: MCF7 cell lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.