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RWDD3 Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS13777

Specification

RWDD3 Antibody (N-Terminus) - Product Information

Application	**WB, IHC**
Primary Accession	Q9Y3V2
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**31kDa KDa**

RWDD3 Antibody (N-Terminus) - Additional Information

Gene ID 25950

Other Names
RWD domain-containing protein 3, RWD domain-containing sumoylation enhancer, RSUME, RWDD3, RSUME

Target/Specificity
Human RWDD3

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions
RWDD3 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

RWDD3 Antibody (N-Terminus) - Protein Information

Name RWDD3

Synonyms RSUME

Function
Enhancer of SUMO conjugation. Via its interaction with UBE2I/UBC9, increases SUMO conjugation to proteins by promoting the binding of E1 and E2 enzymes, thioester linkage between SUMO and UBE2I/UBC9 and transfer of SUMO to specific target proteins which include HIF1A, PIAS, NFKBIA, NR3C1 and TOP1. Isoform 1 and isoform 2 positively regulate the NF-kappa-B signaling pathway by enhancing the sumoylation of NF-kappa-B inhibitor alpha (NFKBIA), promoting its stabilization which consequently leads to an increased inhibition of NF-kappa-B transcriptional activity. Isoform 1 and isoform 2 negatively regulate the hypoxia-inducible factor-1 alpha (HIF1A) signaling pathway by increasing the sumoylation of HIF1A, promoting its stabilization, transcriptional activity and the expression of its target gene VEGFA during hypoxia. Isoform 2 promotes the sumoylation and transcriptional activity of the glucocorticoid receptor NR3C1 and enhances the interaction of

SUMO1 and NR3C1 with UBE2I/UBC9. Has no effect on ubiquitination.

Cellular Location
Nucleus. Cytoplasm. Note=Colocalizes with UBC9/UBE2I in nuclear spots.

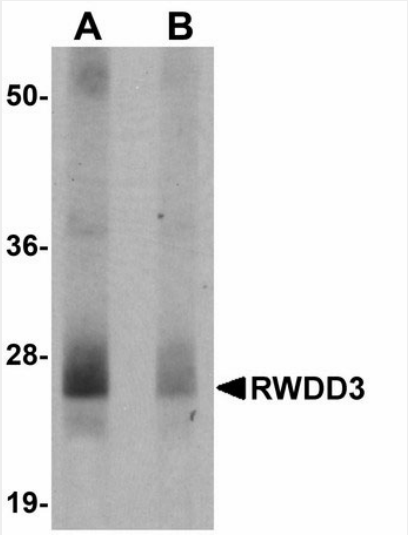
Tissue Location
Isoform 1 and isoform 2 are expressed in glioma tumors (at protein level). Expressed in a wide number of tissues with highest expression in cerebellum, pituitary, heart, kidney, liver, stomach, pancreas, prostate and spleen. Low levels in thalamus, spinal cord, esophagus, thymus, lung and peripheral blood leukocytes. A higher level expression seen in pituitary tumors as compared to the pituitary gland.

RWDD3 Antibody (N-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RWDD3 Antibody (N-Terminus) - Images



Western blot of RWDD3 in mouse kidney tissue lysate with RWDD3 antibody at 0.5 ug/ml in (A) the...

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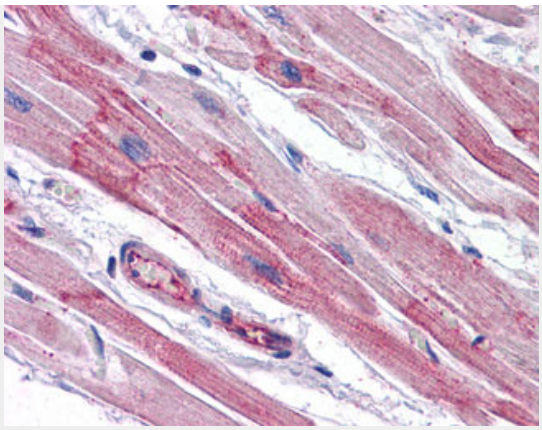

Anti-RWDD3 antibody IHC of human heart.

RWDD3 Antibody (N-Terminus) - Background

Enhancer of SUMO conjugation. Via its interaction with UBE2I/UBC9, increases SUMO conjugation to proteins by promoting the: binding of E1 and E2 enzymes, thioester linkage between SUMO and UBE2I/UBC9 and transfer of SUMO to specific target proteins which include HIF1A, PIAS, NFKBIA, NR3C1 and TOP1. Isoform 1 and isoform 2 positively regulate the NF-kappa-B signaling pathway by enhancing the sumoylation of NF-kappa-B inhibitor alpha (NFKBIA), promoting its stabilization which consequently leads to an increased inhibition of NF-kappa-B transcriptional activity. Isoform 1 and isoform 2 negatively regulate the hypoxia-inducible factor-1 alpha (HIF1A) signaling pathway by increasing the sumoylation of HIF1A, promoting its stabilization, transcriptional activity and the expression of its target gene VEGFA during hypoxia. Isoform 2 promotes the sumoylation and transcriptional activity of the glucocorticoid receptor NR3C1 and enhances the interaction of SUMO1 and NR3C1 with UBE2I/UBC9. Has no effect on ubiquitination.

RWDD3 Antibody (N-Terminus) - References

Wiemann S.,et al.Genome Res. 11:422-435(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
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Gregory S.G.,et al.Nature 441:315-321(2006).
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