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RNF5 Antibody (Center)

Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12440c

Specification

RNF5 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q99942
Other Accession	Q5M807, O35445, NP_008844.1
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**65-94**

RNF5 Antibody (Center) - Additional Information

Other Names
E3 ubiquitin-protein ligase RNF5, 632-, Protein G16, RING finger protein 5, Ram1 homolog, HsRma1, RNF5, G16, NG2, RMA1

Target/Specificity
This RNF5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 65-94 amino acids of human RNF5.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

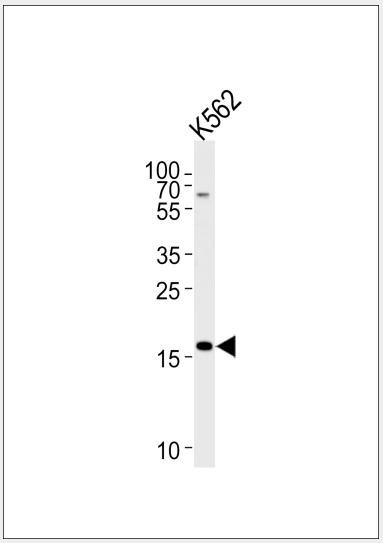
Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
RNF5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

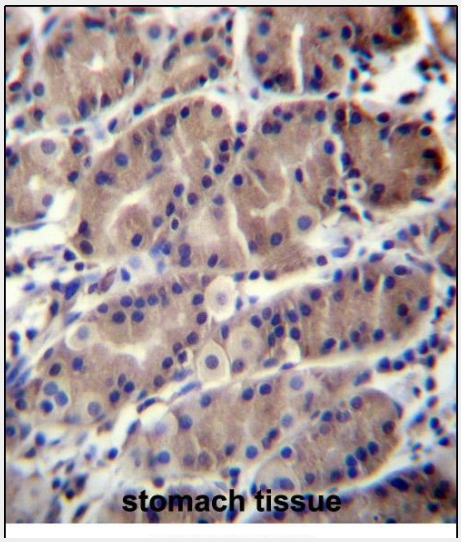
RNF5 Antibody (Center) - Protein Information

Name RNF5

Synonyms G16, NG2, RMA1



Western blot analysis of lysate from K562 cell line, using RNF5 Antibody (Center)(Cat. #AP12440c). AP12440c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.



RNF5 Antibody (Center) (Cat. #AP12440c)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of RNF5 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

Function
Has E2-dependent E3 ubiquitin-protein ligase activity. May function together with E2 ubiquitin-conjugating enzymes UBE2D1/UBCH5A and UBE2D2/UBC4. Mediates ubiquitination of PXN/paxillin and Salmonella type III secreted protein sopA. May be involved in regulation of cell motility and localization of PXN/paxillin. Mediates the 'Lys-63'-linked polyubiquitination of JKAMP thereby regulating JKAMP function by decreasing its association with components of the proteasome and ERAD; the ubiquitination appears to involve E2 ubiquitin-conjugating enzyme UBE2N. Mediates the 'Lys-48'-linked polyubiquitination of STING1 at 'Lys-150' leading to its proteasomal degradation; the ubiquitination occurs in mitochondria after viral transfection and regulates antiviral responses.

Cellular Location
Membrane; Multi-pass membrane protein. Mitochondrion membrane. Endoplasmic reticulum membrane Note=Predominantly located in the plasma membrane, with some localization occurring within cytoplasmic organelles

Tissue Location
Widely expressed.. EMBL; AB056869; BAB39359.1; -; mRNA EMBL; AJ243936; CAB51286.1; -; mRNA EMBL; AK311859; BAG34800.1; -; mRNA EMBL; BT007105; AAP35769.1; -; mRNA EMBL; U89336; AAB47492.1; -; Genomic_DNA EMBL; AL845464; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; AL662884; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; AL662830; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; BX284686; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; BX927239; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; CR812478; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; CR933878; -; NOT_ANNOTATED_CDS; Genomic_DNA EMBL; BC004155; AAH04155.1; -; mRNA EMBL; BC111392; AAI11393.1; -; mRNA EMBL; BC119741; AAI19742.1; -; mRNA EMBL; BC119742; AAI19743.1; -; mRNA EMBL; BC127651; AAI27652.1; -; mRNA EMBL; BC127652; AAI27653.1; -; mRNA EMBL; BC148255; AAI48256.1; -; mRNA CCDS; CCDS4745.1; - RefSeq; NP_008844.1; NM_006913.3 SMR; Q99942; - BioGRID; 111975; 64 DIP; DIP-29268N; - IntAct; Q99942; 68 MINT; Q99942; - STRING; 9606.ENSP00000364235; - iPTMnet; Q99942; - PhosphoSitePlus; Q99942; - BioMuta; RNF5; - DMDM; 74762702; - EPD; Q99942; - jPOST; Q99942; - MassIVE; Q99942; - MaxQB; Q99942; - PaxDb; Q99942; - PeptideAtlas; Q99942; - PRIDE; Q99942; - ProteomicsDB; 78533; - TopDownProteomics; Q99942; - Antibodypedia; 28471; 220 antibodies DNASU; 6048; - Ensembl; ENST00000375094; ENSP00000364235; ENSG00000204308 Ensembl; ENST00000413786; ENSP00000387879; ENSG00000225452 Ensembl; ENST00000432616; ENSP00000413131;

RNF5 Antibody (Center) - Background

The protein encoded by this gene contains a RING finger,
which is a motif known to be involved in protein-protein
interactions. This protein is a membrane-bound ubiquitin ligase. It
can regulate cell motility by targeting paxillin ubiquitination and
altering the distribution and localization of paxillin in cytoplasm
and cell focal adhesions.

RNF5 Antibody (Center) - References

Barcellos, L.F., et al. PLoS Genet. 5 (10), E1000696 (2009) :
Tcherpakov, M., et al. J. Biol. Chem. 284(18):12099-12109(2009)
Zhong, B., et al. Immunity 30(3):397-407(2009)
McKinnon, E., et al. Diabetes Obes Metab 11 SUPPL 1, 92-100 (2009) :
Bromberg, K.D., et al. Cancer Res. 67(17):8172-8179(2007)

ENSG00000183574 Ensembl; ENST00000445885; ENSP00000401172; ENSG00000227277 Ensembl; ENST00000449794; ENSP00000415784; ENSG00000223767 Ensembl; ENST00000453473; ENSP00000415127; ENSG00000228907 Ensembl; ENST00000456167; ENSP00000388795; ENSG00000228405 GeneID; 6048; - KEGG; hsa:6048; - UCSC; uc003oaj.5; human CTD; 6048; - DisGeNET; 6048; - EuPathDB; HostDB:ENSG00000204308.7; - GeneCards; RNF5; - HGNC; HGNC:10068; RNF5 HPA; ENSG00000204308; Low tissue specificity MIM; 602677; gene neXtProt; NX_Q99942; - OpenTargets; ENSG00000204308; - PharmGKB; PA34442; - eggNOG; KOG0823; Eukaryota eggNOG; ENOG4111IHV; LUCA GeneTree; ENSGT00390000014107; - HOGENOM; CLU_055198_2_1_1; - InParanoid; Q99942; - KO; K10666; - OMA; WPCLHQV; - OrthoDB; 1510545at2759; - PhylomeDB; Q99942; - TreeFam; TF317334; - Reactome; R-HSA-382556; ABC-family proteins mediated transport Reactome; R-HSA-5678895; Defective CFTR causes cystic fibrosis Reactome; R-HSA-901032; ER Quality Control Compartment (ERQC) UniPathway; UPA00143; - BioGRID-ORCS; 6048; 82 hits in 786 CRISPR screens GeneWiki; RNF5; - GenomeRNAi; 6048; - Pharos; Q99942; Tbio PRO; PR:Q99942; - Proteomes; UP000005640; Chromosome 6 RNAct; Q99942; protein Bgee; ENSG00000204308; Expressed in adult mammalian kidney and 93 other tissues ExpressionAtlas; Q99942; baseline and differential Genevisible; Q99942; HS GO; GO:0005783; C:endoplasmic reticulum; IDA:HPA GO; GO:0005789; C:endoplasmic reticulum membrane; TAS:Reactome GO; GO:0044322; C:endoplasmic reticulum quality control compartment; IEA:GOC GO; GO:0016021; C:integral component of membrane; IEA:UniProtKB-KW GO; GO:0031966; C:mitochondrial membrane; IEA:UniProtKB-SubCell GO; GO:0042802; F:identical protein binding; IPI:IntAct GO; GO:0044877; F:protein-containing complex binding; IPI:ParkinsonsUK-UCL GO; GO:0061630; F:ubiquitin protein ligase activity; IBA:GO_Central GO; GO:0044390; F:ubiquitin-like protein conjugating enzyme binding; IBA:GO_Central GO; GO:0004842; F:ubiquitin-protein transferase activity; IDA:UniProtKB GO; GO:0008270; F:zinc ion binding; TAS:ProtInc GO; GO:0044257; P:cellular protein catabolic process; IMP:UniProtKB GO; GO:1904380; P:endoplasmic reticulum mannose trimming; TAS:Reactome GO; GO:0071712; P:ER-associated misfolded protein catabolic process; IMP:UniProtKB GO; GO:0036503; P:ERAD pathway; IMP:ParkinsonsUK-UCL GO; GO:0010507; P:negative regulation of autophagy; IEA:Ensembl GO; GO:0031648; P:protein destabilization; IEA:Ensembl GO; GO:0070936; P:protein K48-linked ubiquitination; IDA:UniProtKB GO; GO:0070534; P:protein K63-linked ubiquitination; IDA:UniProtKB GO; GO:2000785; P:regulation of autophagosome

assembly; IEA:Ensembl GO; GO:0009617; P:response to bacterium; IEA:Ensembl GO; GO:0055085; P:transmembrane transport; TAS:Reactome GO; GO:0030433; P:ubiquitin-dependent ERAD pathway; IGI:ParkinsonsUK-UCL GO; GO:0006511; P:ubiquitin-dependent protein catabolic process; IBA:GO_Central Gene3D; 3.30.40.10; -; 1 InterPro; IPR001841; Znf_RING InterPro; IPR013083; Znf_RING/FYVE/PHD InterPro; IPR017907; Znf_RING_CS SMART; SM00184; RING; 1 PROSITE; PS00518; ZF_RING_1; 1 PROSITE; PS50089; ZF_RING_2; 1 1: Evidence at protein level; Acetylation; Endoplasmic reticulum; Membrane; Metal-binding; Mitochondrion; Phosphoprotein; Reference proteome; Transferase; Transmembrane; Transmembrane helix; Ubl conjugation pathway; Zinc; Zinc-finger INIT_MET 1 /note="Removed" /evidence="ECO:0000244|PubMed:19413330, ECO:0000244|PubMed:22223895, ECO:0000244|PubMed:22814378, ECO:0000269|PubMed:25489052" CHAIN 2..180 /note="E3 ubiquitin-protein ligase RNF5" /id="PRO_0000240393" TRANSMEM 118..138 /note="Helical" /evidence="ECO:0000255" TRANSMEM 160..180 /note="Helical" /evidence="ECO:0000255" ZN_FING 27..68 /note="RING-type" /evidence="ECO:0000255|PROSITE-ProRule:PRU00175" MOD_RES 2 /note="N-acetylalanine" /evidence="ECO:0000244|PubMed:19413330, ECO:0000244|PubMed:22223895, ECO:0000244|PubMed:22814378, ECO:0000269|PubMed:25489052" MOD_RES 84 /note="Phosphoserine" /evidence="ECO:0000244|PubMed:23186163" MOD_RES 94 /note="Phosphothreonine" /evidence="ECO:0000244|PubMed:23186163" MOD_RES 107 /note="Phosphoserine" /evidence="ECO:0000244|PubMed:23186163" MUTAGEN 42 /note="C->S: Loss of E3 ubiquitin-protein ligase activity." /evidence="ECO:0000269|PubMed:11329381" CONFLICT 22 /note="G -> S (in Ref. 3; CAB51286)" /evidence="ECO:0000305" CONFLICT 60 /note="E -> D (in Ref. 3; CAB51286)" /evidence="ECO:0000305" CONFLICT 117 /note="T -> A (in Ref. 3; CAB51286)" /evidence="ECO:0000305" CONFLICT 148 /note="T -> A (in Ref. 3; CAB51286)" /evidence="ECO:0000305" SEQUENCE 180 AA; 19881 MW; E5AFA4DE6DE85942 CRC64; MAAAEEEDGG PEGPNRERGG AGATFECNIC LETAREAVVS VCGHLYCWPC LHQWLETRPE RQECPVCKAG ISREKVVPLY GRGSQKPQDP RLKTPPRPQG QRPAPESRGG FQPFGDTGGF HFSFGVGAFP FGFFTTVFNA HEPFRRGTGV DLGQGHPASS WQDSLFLFLA IFFFFWLLSI

RNF5 Antibody (Center) - 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

RNF5 Antibody (Center) - Citations

- VAMP-associated Proteins (VAP) as Receptors That Couple Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Proteostasis with Lipid Homeostasis.