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RACK7 Polyclonal Antibody
Catalog # AP72138

Specification

RACK7 Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	Q9ULU4
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**

RACK7 Polyclonal Antibody - Additional Information

Gene ID 23613

Other Names
ZMYND8; KIAA1125; PRKCBP1; RACK7; Protein kinase C-binding protein 1; Cutaneous T-cell lymphoma-associated antigen se14-3; CTCL-associated antigen se14-3; Rack7; Zinc finger MYND domain-containing protein 8

Dilution
WB~~Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

RACK7 Polyclonal Antibody - Protein Information

Name ZMYND8

Synonyms KIAA1125, PRKCBP1, RACK7

Function
Chromatin reader that recognizes dual histone modifications such as histone H3.1 dimethylated at 'Lys-36' and histone H4 acetylated at 'Lys-16' (H3.1K36me2-H4K16ac) and histone H3 methylated at 'Lys-4' and histone H4 acetylated at 'Lys-14' (H3K4me1-H3K14ac) (PubMed:26655721, PubMed:27477906, PubMed:31965980, PubMed:36064715). May act as a transcriptional corepressor for KDM5D by recognizing the dual histone signature H3K4me1-H3K14ac (PubMed:27477906). May also act as a transcriptional corepressor for KDM5C and EZH2 (PubMed:<a href="http://www.uniprot.org/citations/33323928"

target="_blank">33323928). Recognizes acetylated histone H4 and recruits the NuRD chromatin remodeling complex to damaged chromatin for transcriptional repression and double-strand break repair by homologous recombination (PubMed:25593309, PubMed:27732854, PubMed:30134174). Also activates transcription elongation by RNA polymerase II through recruiting the P- TEFb complex to target promoters (PubMed:26655721, PubMed:30134174). Localizes to H3.1K36me2-H4K16ac marks at all-trans-retinoic acid (ATRA)-responsive genes and positively regulates their expression (PubMed:26655721). Promotes neuronal differentiation by associating with regulatory regions within the MAPT gene, to enhance transcription of a protein-coding MAPT isoform and suppress the non-coding MAPT213 isoform (PubMed:30134174, PubMed:35916866, PubMed:36064715). Suppresses breast cancer, and prostate cancer cell invasion and metastasis (PubMed:27477906, PubMed:31965980, PubMed:33323928).

Cellular Location
Nucleus. Chromosome. Cytoplasm. Note=Sequestered in the cytoplasm through the interaction with DBN1 (PubMed:28966017). Localizes to sites of DNA damage in a KAT5-dependent and DNA poly (ADP-ribose)-dependent manner (PubMed:25593309, PubMed:27732854). On chromatin, localizes to demethylated regions, active promoters, and transcription start sites (PubMed:27732854, PubMed:36064715).

Tissue Location
Expressed in neurons (at protein level) (PubMed:36064715). Absent in astrocytes (at protein level) (PubMed:36064715). Expressed in all tissues examined with highest expression in brain, lung, pancreas, and placenta (PubMed:11003709, PubMed:35916866). Expressed in cutaneous T-cell lymphomas (CTCL) (PubMed:11149944).

RACK7 Polyclonal Antibody - 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

RACK7 Polyclonal Antibody - Images

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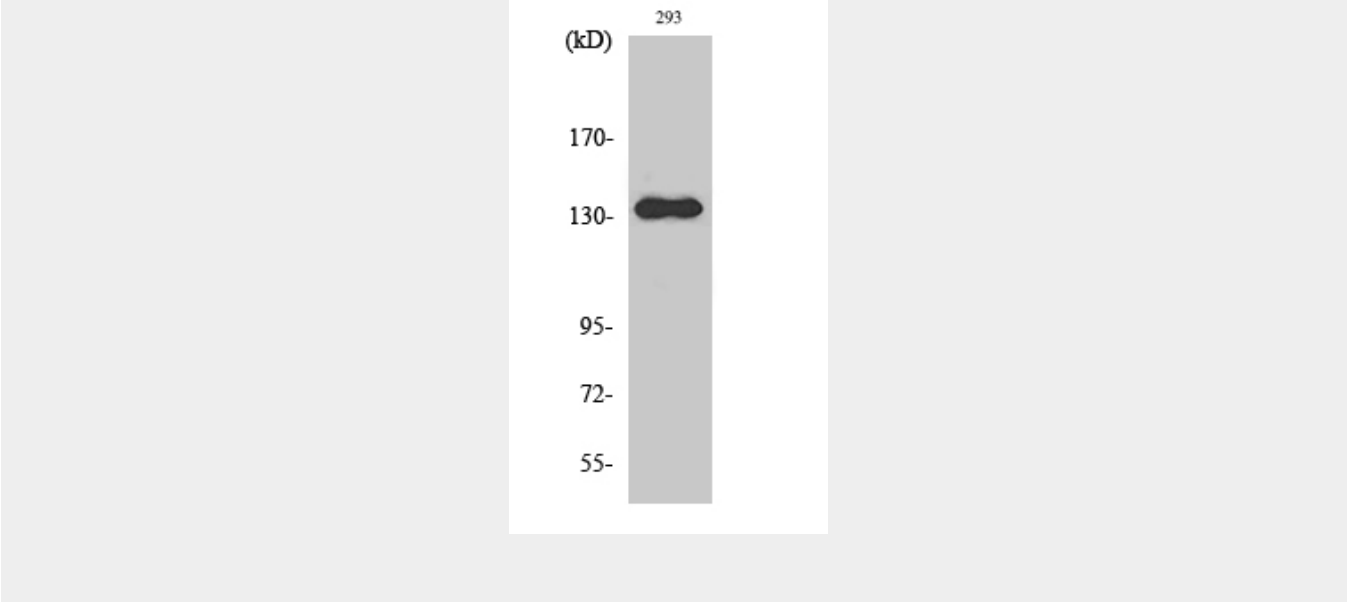

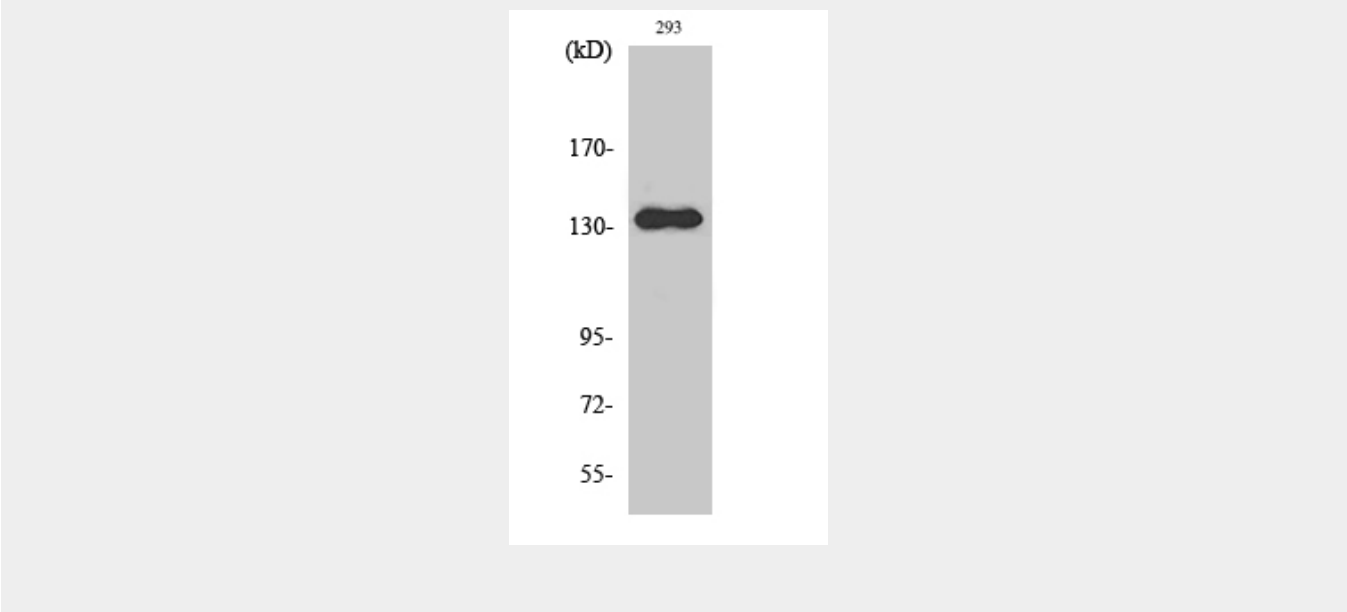

RACK7 Polyclonal Antibody - Background

May act as a transcriptional corepressor for KDM5D. Required for KDM5D-mediated down-regulation of diverse metastasis- associated genes; the function seems to involve the recognition of the dual histone signature H3K4me1-H3K14ac. Suppresses prostate cancer cell invasion.