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RIOK3 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20884a

Product Information

Application	WB, E
Primary Accession	O14730
Reactivity	Human, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB49659
Calculated MW	59093

Additional Information

Gene ID	8780
Other Names	Serine/threonine-protein kinase RIO3, RIO kinase 3, sudD homolog, RIOK3, SUDD
Target/Specificity	This RIOK3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 146-179 amino acids from the Central region of human RIOK3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	RIOK3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RIOK3
Function	Serine/threonine-protein kinase involved in a ribosome quality control that takes place when ribosomes have stalled, leading to 18S non-functional rRNA decay and degradation of the 40S ribosomal subunit (PubMed:39947182, PubMed:39947183, PubMed:40022732). Acts downstream of RNF10:

specifically recognizes and binds RPS2/us5 and RPS3/us3 monoubiquitinated by RNF10, promoting degradation of the 40S ribosomal subunit in a kinase-dependent manner (PubMed:39947182, PubMed:39947183, PubMed:40022732). The RNF10-RIOK3 ribosome quality control takes place in response to ribosome subunit imbalance or downstream the EIF2AK4/GCN2-mediated integrated stress response (ISR) (PubMed:39947182, PubMed:39947183, PubMed:40022732). Also involved in regulation of type I interferon (IFN)-dependent immune response, possibly by acting as an adapter protein essential for the recruitment of TBK1 to IRF3 (PubMed:24807708). Phosphorylates IFIH1 on 'Ser-828' interfering with IFIH1 filament assembly on long dsRNA and resulting in attenuated IFIH1-signaling (PubMed:25865883). Can inhibit CASP10 isoform 7-mediated activation of the NF-kappa-B signaling pathway (PubMed:19557502).

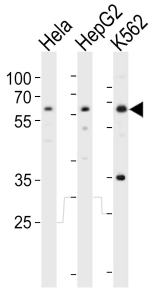
Cellular Location Cytoplasm, cytosol

Tissue Location Widely expressed..

References

Anaya P.,et al.Gene 211:323-329(1998).
Nusbaum C.,et al.Nature 437:551-555(2005).
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).
Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).
Greenman C.,et al.Nature 446:153-158(2007).

Images



Western blot analysis of lysates from Hela, HepG2, K562 cell line (from left to right), using RIOK3 Antibody (Center)(Cat. #AP20884a). AP20884a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

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