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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
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).

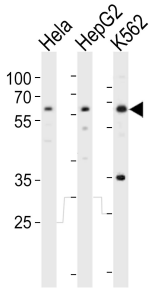
Cellular Location Cytoplasm, cytosol

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'.