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ARK5 Polyclonal Antibody

Catalog Number **PA5-15327**

Product data sheet

Details	
Size	400 µL
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Immunogen	KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ARK5
Conjugate	Unconjugated
Form	Liquid
Concentration	Lot-specific
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles

Tested Applications	Dilution *
Immunohistochemistry (Paraffin) (IHC (P))	1:50-1:100
Western Blot (WB)	1:1,000

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Background/Target Information

NUAK1 (ARK5) is a serine/threonine kinase that plays a role in many cellular functions. The overexpression of this kinase has been associated with tumor invasion and metastasis (colorectal neoplasm). Acts as a regulator of cellular senescence and cellular ploidy by mediating phosphorylation of 'Ser-464' of LATS1, thereby controlling its stability. Controls cell adhesion by regulating activity of the myosin protein phosphatase 1 (PP1) complex. Acts by mediating phosphorylation of PPP1R12A subunit of myosin PP1: phosphorylated PPP1R12A then interacts with 14-3-3, leading to reduced dephosphorylation of myosin MLC2 by myosin PP1. May be involved in DNA damage response: phosphorylates p53/TP53 at 'Ser-15' and 'Ser-392' and is recruited to the CDKN1A/WAF1 promoter to participate in transcription activation by p53/TP53. May also act as a tumor malignancy-associated factor by promoting tumor invasion and metastasis under regulation and phosphorylation by AKT1. Suppresses Fas-induced apoptosis by mediating phosphorylation of CASP6, thereby suppressing the activation of the caspase and the subsequent cleavage of CFLAR. Regulates UV radiation-induced DNA damage response mediated by CDKN1A. In association with STK11, phosphorylates CDKN1A in response to UV radiation and contributes to its degradation which is necessary for optimal DNA repair.

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