

**ARK5 / NUA1 Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF2736a

**Specification**

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**ARK5 / NUA1 Antibody (internal region) - Product Information**

Application	WB
Primary Accession	<a href="#">O60285</a>
Other Accession	<a href="#">NP_055655.1</a> , <a href="#">9891</a> , <a href="#">299694 (rat)</a>
Reactivity	Human
Predicted	Rat
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	74305

**ARK5 / NUA1 Antibody (internal region) - Additional Information**

**Gene ID** 9891

**Other Names**

NUAK family SNF1-like kinase 1, 2.7.11.1, AMPK-related protein kinase 5, ARK5, Omphalocle kinase 1, NUA1, ARK5, KIAA0537, OMPHK1

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ARK5 / NUA1 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**ARK5 / NUA1 Antibody (internal region) - Protein Information**

**Name** NUA1

**Synonyms** ARK5, KIAA0537, OMPHK1

**Function**

Serine/threonine-protein kinase involved in various processes such as cell adhesion, regulation of cell ploidy and senescence, cell proliferation and tumor progression. Phosphorylates ATM, CASP6, LATS1, PPP1R12A and p53/TP53. 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 (PubMed:<a href="http://www.uniprot.org/citations/25329316" target="\_blank">25329316</a>).

#### Cellular Location

Nucleus. Cytoplasm

#### Tissue Location

Expressed at high levels in heart and brain, and at lower levels in skeletal muscle, kidney, ovary, placenta, lung and liver. Highly up-regulated in colorectal cancer cell lines

### ARK5 / NUAK1 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### ARK5 / NUAK1 Antibody (internal region) - Images



AF2736a (0.3 µg/ml) staining of Kidney lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### ARK5 / NUAK1 Antibody (internal region) - References

Strong association of ARK5 with tumor invasion and metastasis. Kusakai G, Suzuki A, Ogura T, Kaminishi M, Esumi H. J Exp Clin Cancer Res. 2004 Jun;23(2):263-8. PMID: 15354411