

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human ARK5/NUAK1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human SNARK is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 715901
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human ARK5/NUAK1 Lys311-Met462 Accession # O60285
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

AMPK-related kinase 5 (ARK5), also known as NUAK1, is a 74 kDa intracellular Ser/Thr kinase that promotes cell survival during nutrient deprivation and TNF family ligand-induced apoptosis. ARK5 is activated by Akt, NDR2, and LKB1-mediated phosphorylation at multiple serine and threonine residues. It inhibits the activation of Caspase-6, Caspase-8, and myosin phosphatases but promotes the activation of MMP2 and MMP9. ARK5 overexpression in several cancers contributes to increased tumor progression and aggressiveness. ARK5 contains one catalytic domain (aa 65-306), and a short isoform of the human protein is prematurely truncated within this domain. Within aa 311-462, human ARK5 shares 88% and 85% aa sequence identity with mouse and rat ARK5, respectively.

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