

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HIPK2 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 493918
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human HIPK2 Met765-Ser924 Accession # Q9H2X6
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.

Immunocytochemistry 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

Homeodomain-interacting protein kinase-2 (HIPK2) is a serine/threonine kinase which interacts with transcription factors, including p53, CREB1, SMAD1, SMAD2, RUNX1 and others, and can act as a corepressor or coactivator depending on the transcription factor and subcellular localization. Post-translational modifications control HIPK2 activity, including phosphorylation, small ubiquitin-like modifier modification, acetylation, and ubiquitination. HIPK2 regulation of cell proliferation makes it a key effector of proliferative diseases including cancer and kidney fibrosis. For example, HIPK2 can repress the proliferative Wnt-1/b-catenin pathway and HIF-1, promote apoptosis by activation of p53 and repression of ΔNp63α, MDM2 and CtBP, and its activity is enhanced by anti-cancer drugs such as cisplatin and etoposide. HIPK2 oncorepression can be blocked by cytoplasmic localization, hypoxia, gene mutation and loss of heterozygosity.

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