

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human HIPK2 in direct ELISAs.                                                                                                                                                                                                                                       |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 493918                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human HIPK2<br>Met765-Ser924<br>Accession # Q9H2X6                                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | 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.

## PRODUCT SPECIFIC NOTICES

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