

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse                                                                                  |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human FIH-1/HIF-1AN in ELISAs.                                                       |
| <b>Source</b>                                                                                                                                                                                           | Monoclonal Mouse IgG <sub>2B</sub> Clone # 745122                                            |
| <b>Purification</b>                                                                                                                                                                                     | Protein A or G purified from hybridoma culture supernatant                                   |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human FIH-1/HIF-1AN<br>Met1-Asn349<br>Accession # Q9NWT6 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm              |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | 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

Factor-inhibiting hypoxia-inducible factor 1 (FIH-1), also known as HIF-1AN, is a 40-45 kDa oxygenase that hydroxylates asparagine, aspartate, and histidine residues in target proteins. Its homodimerization is required for substrate recognition. Under normoxic conditions, FIH-mediated hydroxylation inhibits the function of HIF-1 alpha and HIF-2 alpha by preventing their association with the transcriptional coactivator p300. FIH activity is inhibited under hypoxic conditions which allows HIF to mediate hypoxia-induced gene transcription. FIH also hydroxylates amino acids within the ankyrin repeat domains (ARD) of various other proteins including IκB-alpha, NFκB1, AnkyrinR, AnkyrinB, Tankyrase 2, MYPT1 smooth muscle myosin phosphatase, and Notch. Human FIH-1 shares 97% aa sequence identity with mouse and rat FIH-1.

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