

## DESCRIPTION

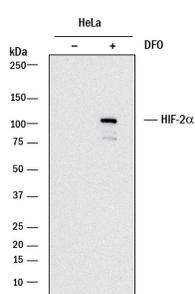
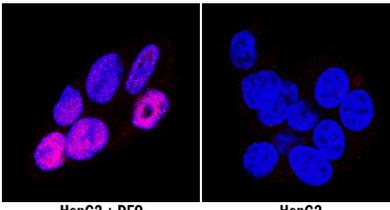
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human HIF-2 $\alpha$ /EPAS1 in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 2444A
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human HIF-2 $\alpha$ /EPAS1 Ser543-Thr870 Accession # Q99814
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS.

## 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>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	2 $\mu$ g/mL	See Below
<b>Immunocytochemistry</b>	3-25 $\mu$ g/mL	See Below

## DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human HIF-2<math>\alpha</math>/EPAS1 by Western Blot.</b> Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 1 mM DFO for overnight. PVDF membrane was probed with 2 <math>\mu</math>g/mL of Rabbit Anti-Human HIF-2<math>\alpha</math>/EPAS1 Monoclonal Antibody (Catalog # MAB2997) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for HIF-2<math>\alpha</math>/EPAS1 at approximately 110 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>HIF-2<math>\alpha</math>/EPAS1 in HepG2 Human Cell Line.</b> HIF-2<math>\alpha</math>/EPAS1 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line treated with DFO (left panel; positive stain) or untreated (right panel; negative stain) using Rabbit Anti-Human HIF-2<math>\alpha</math>/EPAS1 Monoclonal Antibody (Catalog # MAB2997) at 3 <math>\mu</math>g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to nuclei in DFO treated cells. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The hypoxia-inducible transcription factor 2 $\alpha$  (HIF-2 $\alpha$ ) is stabilized in hypoxic tissue and, similarly to HIF-1 $\alpha$ , complexes with Aryl hydrocarbon receptor nuclear translocator (ARNT). Both the HIF-1 and HIF-2 complexes bind hypoxia-response elements (HREs) in the promoters of many genes involved in adapting to an environment of insufficient oxygen or hypoxia. HIF-1 and HIF-2 do not appear completely redundant, although specific functions are only beginning to be elucidated. Hypoxic tissue environments occur in vascular and pulmonary diseases as well as cancer, which illustrates the potentially broad impact of gene regulation by both HIF-1 $\alpha$  and HIF-2 $\alpha$ .