

## Product datasheet

# Human HIF3 alpha peptide ab20077

### Overview

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**Product name** Human HIF3 alpha peptide

### Description

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**Nature** Synthetic

### Specifications

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Our [Abpromise guarantee](#) covers the use of **ab20077** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Blocking - Blocking peptide for Anti-HIF3 alpha antibody ([ab10134](#))

**Form** Liquid

**Additional notes**

- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.
- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.
- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.
- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.
- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.

### Preparation and Storage

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**Stability and Storage** Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Information available upon request.

### General Info

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**Function** Involved in adaptive response to hypoxia. Suppresses hypoxia-inducible expression of HIF1A and EPAS1. Binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element

(HRE) of target gene promoters. The complex HIF3A-ARNT activates the transcription of reporter genes driven by HRE. Isoform 4 has a dominant-negative function of inactivating HIF1A-mediated transcription. Isoform 4 attenuates the binding of HIF1A to hypoxia-responsive elements (HRE), thus inhibiting HRE-driven transcription. Hypoxia induces down-regulation of isoform 4, leading to activation of HIF1A in hypoxia. Conversely, upon restoring normoxia, the expression of isoform 4 increases and thereby secure an inhibition of HIF1A activity. Isoform 4 may be a negative regulator of hypoxia-inducible gene expression in the kidney and may be involved in renal tumorigenesis. Functions as an inhibitor of angiogenesis in the cornea.

**Tissue specificity**

Expressed in kidney. Expressed abundantly in lung epithelial cells. Expression is regulated in an oxygen-dependent manner.

**Sequence similarities**

Contains 1 basic helix-loop-helix (bHLH) domain.  
Contains 2 PAS (PER-ARNT-SIM) domains.

**Post-translational modifications**

In normoxia, hydroxylated on Pro-492 in the oxygen-dependent degradation domain (ODD) by PHD. The hydroxylated proline promotes interaction with VHL, initiating rapid ubiquitination and subsequent proteasomal degradation.

**Cellular localization**

Nucleus. Cytoplasm. In the nuclei of all periportal and perivenous hepatocytes. In the distal perivenous zone, detected in the cytoplasm of the hepatocytes.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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