

Product datasheet

Human HIF3 alpha peptide ab20077

Overview

Product name Human HIF3 alpha peptide

Description

Nature Synthetic

Amino Acid Sequence

Species Human

Specifications

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

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

Function	Involves 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 secures 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.

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