

Product datasheet

Human JMJD6 peptide ab64574

Overview

Product name Human JMJD6 peptide

Description

Nature Synthetic

Amino Acid Sequence

Species Human

Specifications

Our [Abpromise guarantee](#) covers the use of **ab64574** 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-JMJD6 antibody ([ab64575](#))

Purity 70 - 90% by HPLC.

Form Liquid

Additional notes Blocking peptide for [ab64575](#)

- 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

Dioxygenase that can both act as a histone arginine demethylase and a lysyl-hydroxylase. Acts as a lysyl-hydroxylase that catalyzes 5-hydroxylation on specific lysine residues of target proteins such as U2AF2/U2AF65 and LUC7L2. Acts as a regulator of RNA splicing by mediating 5-hydroxylation of U2AF2/U2AF65, affecting the pre-mRNA splicing activity of U2AF2/U2AF65. In addition to peptidyl-lysine 5-dioxygenase activity, may act as a RNA hydroxylase, as suggested by its ability to bind single strand RNA. Also acts as an arginine demethylase which demethylates histone H3 at 'Arg-2' (H3R2me) and histone H4 at 'Arg-3' (H4R3me), thereby playing a role in histone code. However, histone arginine demethylation may not constitute the primary activity in vivo. Has no histone lysine demethylase activity. Required for differentiation of multiple organs during embryogenesis. Acts as a key regulator of hematopoietic differentiation: required for angiogenic sprouting by regulating the pre-mRNA splicing activity of U2AF2/U2AF65. Seems to be necessary for the regulation of macrophage cytokine responses.

Tissue specificity

Highly expressed in the heart, skeletal muscle and kidney. Expressed at moderate or low level in brain, placenta, lung, liver, pancreas, spleen, thymus, prostate, testis and ovary. Up-regulated in many patients with chronic pancreatitis. Expressed in nursing thymic epithelial cells.

Sequence similarities

Belongs to the JMJD6 family.
Contains 1 JmjC domain.

Domain

The nuclear localization signal motifs are necessary and sufficient to target it into the nucleus.

Cellular localization

Nucleus > nucleoplasm. Nucleus > nucleolus. Mainly found throughout the nucleoplasm outside of regions containing heterochromatic DNA, with some localization in nucleolus. During mitosis, excluded from the nucleus and reappears in the telophase of the cell cycle.

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