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WHSC1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17079b

Specification

WHSC1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O96028

WHSC1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 7468

Other Names
Histone-lysine N-methyltransferase NSD2, Multiple myeloma SET domain-containing protein, MMSET, Nuclear SET domain-containing protein 2, NSD2, Protein trithorax-5, Wolf-Hirschhorn syndrome candidate 1 protein, WHSC1, WHSC1, KIAA1090, MMSET, NSD2, TRX5

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

WHSC1 Antibody (C-term) Blocking Peptide - Protein Information

Name NSD2 (HGNC:12766)

Function
Histone methyltransferase which specifically dimethylates nucleosomal histone H3 at 'Lys-36' (H3K36me2) (PubMed:19808676, PubMed:22099308, PubMed:27571355, PubMed:29728617, PubMed:33941880). Also monomethylates nucleosomal histone H3 at 'Lys-36' (H3K36me) in vitro (PubMed:22099308). Does not trimethylate nucleosomal histone H3 at 'Lys-36' (H3K36me3) (PubMed:22099308). However, specifically trimethylates histone H3 at 'Lys-36' (H3K36me3) at euchromatic regions in embryonic stem (ES) cells (By similarity). By methylating histone H3 at 'Lys-36', involved in the regulation of gene transcription during various biological processes (PubMed:16115125, PubMed:22099308, PubMed:<a href="http://www.uniprot.org/citations/29728617"

target="_blank">29728617). In ES cells, associates with developmental transcription factors such as SALL1 and represses inappropriate gene transcription mediated by histone deacetylation (By similarity). During heart development, associates with transcription factor NKX2-5 to repress transcription of NKX2-5 target genes (By similarity). Plays an essential role in adipogenesis, by regulating expression of genes involved in pre-adipocyte differentiation (PubMed:29728617). During T- cell receptor (TCR) and CD28-mediated T-cell activation, promotes the transcription of transcription factor BCL6 which is required for follicular helper T (Tfh) cell differentiation (By similarity). During B-cell development, required for the generation of the B1 lineage (By similarity). During B2 cell activation, may contribute to the control of isotype class switch recombination (CRS), splenic germinal center formation, and the humoral immune response (By similarity). Plays a role in class switch recombination of the immunoglobulin heavy chain (IgH) locus during B-cell activation (By similarity). By regulating the methylation of histone H3 at 'Lys-36' and histone H4 at 'Lys-20' at the IgH locus, involved in TP53BP1 recruitment to the IgH switch region and promotes the transcription of IgA (By similarity).

Cellular Location
Nucleus. Chromosome {ECO:0000250|UniProtKB:Q8BVE8}. Note=In embryonic stem (ES) cells, localizes to small foci, probably corresponding to euchromatin (By similarity). In B-cells, localizes to Ig heavy chain switch region during class switch recombination (By similarity) {ECO:0000250|UniProtKB:Q8BVE8} [Isoform 3]: Nucleus

Tissue Location
Widely expressed (PubMed:18172012, PubMed:9618163). Predominantly expressed in thymus and testis (PubMed:18172012, PubMed:9787135).

WHSC1 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

WHSC1 Antibody (C-term) Blocking Peptide - Images

WHSC1 Antibody (C-term) Blocking Peptide - Background

This gene encodes a protein that contains four domainspresent in other developmental proteins: a PWWP domain, an HMG box,a SET domain, and a PHD-type zinc finger. It is expressedubiquitously in early development. Wolf-Hirschhorn syndrome (WHS)is a malformation syndrome associated with a hemizygous deletion ofthe distal short arm of chromosome 4. This gene maps to the 165 kbWHS critical region and has also been involved in the chromosomaltranslocation t(4;14)(p16.3;q32.3) in multiple myelomas.Alternative splicing of this gene results in multiple transcriptvariants encoding different isoforms. Some transcript variants arenonsense-mediated mRNA (NMD) decay candidates, hence notrepresented as reference sequences.

WHSC1 Antibody (C-term) Blocking Peptide - References

Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :Kang, H.B., et al. FEBS Lett. 583(12):1880-1886(2009)Kassambara, A., et al. Biochem. Biophys. Res. Commun. 379(4):840-845(2009)Brito, J.L., et al. Haematologica 94(1):78-86(2009)Li, J., et al. Neuro-oncology 10(1):45-51(2008)