

Active Recombinant Human WHSC1, FLAG-tagged

Cat. No. WHSC1-57H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human WHSC1 protein (accession number NP_579877.1) was expressed in Sf9 cells and contains an N-terminal FLAG tag with an observed molecular weight of 154 kDa.
Species	Human
Source	Sf9 Cells
Description	MMSET (Multiple Myeloma SET domain-containing protein) / WHSC1 (Wolf-Hirschhorn Syndrome Candidate 1; also known as NSD2, Nuclear Receptor binding SET domain protein 2; TRX5, Trithorax 5) is a SET domain-containing histone methyltransferase specific for lysine 36 of histone H3. The MMSET / WHSC1 gene is deleted in Wolf-Hirschhorn syndrome, a disorder characterized by developmental defects and mental retardation. In 15% of patients with Multiple Myeloma (MM), a chromosomal translocation leads to MMSET / WHSC1 gene being aberrantly placed under the control of the IgH intronic μ enhancer and expressed at very high levels. This event is apparently a key component in cellular transformation leading to MM. Reduction in MMSET / WHSC1 expression in a myeloma cell line suppressed its growth, suggesting a role for MMSET in maintaining the transformed state.
Form	25 mM HEPES, pH 7.5, 150 mM NaCl and 5% glycerol.
Bio-activity	Histone methyltransferase with histone H3 "Lys-27" (H3K27me) methyltransferase activity.

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Applications	Enzyme kinetics, inhibitor screening, and selectivity profiling.
Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Concentration	0.5 mg/ml
GENE INFORMATION	
Gene Name	WHSC1 Wolf-Hirschhorn syndrome candidate 1 [Homo sapiens]
Official Symbol	WHSC1
Synonyms	WHSC1; Wolf-Hirschhorn syndrome candidate 1; probable histone-lysine N-methyltransferase NSD2; MMSET; NSD2; trithorax/ash1-related protein 5; nuclear SET domain-containing protein 2; IL5 promoter REII region-binding protein; multiple myeloma SET domain containing protein type III; WHS; TRX5; REIIBP; FLJ23286; KIAA1090; MGC176638;
Gene ID	7468
mRNA Refseq	NM_001042424
Protein Refseq	NP_001035889
MIM	602952
UniProt ID	O96028
Chromosome	4p16.3

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Location	
Pathway	Lysine degradation, organism-specific biosystem; Lysine degradation, conserved biosystem; Transcriptional misregulation in cancer, organism-specific biosystem; Transcriptional misregulation in cancer, conserved biosystem;
Function	DNA binding; histone-lysine N-methyltransferase activity; metal ion binding; methyltransferase activity; transferase activity; zinc ion binding;

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