

## Active Recombinant Human WHSC1, FLAG-tagged

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

### SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>Description</b>	<p>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 <math>\mu</math> 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.</p>
<b>Form</b>	25 mM HEPES, pH 7.5, 150 mM NaCl and 5% glycerol.
<b>Bio-activity</b>	Histone methyltransferase with histone H3 "Lys-27" (H3K27me) methyltransferase activity.

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<b>Applications</b>	Enzyme kinetics, inhibitor screening, and selectivity profiling.
<b>Storage</b>	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.
<b>Concentration</b>	0.5 mg/ml
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	<a href="#">WHSC1</a> Wolf-Hirschhorn syndrome candidate 1 [ Homo sapiens ]
<b>Official Symbol</b>	WHSC1
<b>Synonyms</b>	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 RE11 region-binding protein; multiple myeloma SET domain containing protein type III; WHS; TRX5; REIIBP; FLJ23286; KIAA1090; MGC176638;
<b>Gene ID</b>	<a href="#">7468</a>
<b>mRNA Refseq</b>	<a href="#">NM_001042424</a>
<b>Protein Refseq</b>	<a href="#">NP_001035889</a>
<b>MIM</b>	<a href="#">602952</a>
<b>UniProt ID</b>	<a href="#">O96028</a>
<b>Chromosome</b>	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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