

Datasheet for ABIN2669720

WHSC1 Protein (AA 942-1240) (GST tag)**2** Images[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	WHSC1
Protein Characteristics:	AA 942-1240
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This WHSC1 protein is labelled with GST tag.
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant MMSET / WHSC1 - SET peptide that includes amino acids 942-1240 that contains the SET domain sequence of the human MMSET (NSD2) protein (accession number NP_579877.1) was expressed in E. coli cells and contains an N-terminal GST tag with an observed molecular weight of 60 kDa.
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Target Details

Target:	WHSC1
Alternative Name:	MMSET / WHSC1 (WHSC1 Products)
Background:	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

Target Details

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. MMSET / WHSC1 - SET includes the SET domain of MMSET (NSD2). The SET domain is a 130 to 140 amino acid, evolutionary conserved motif that was initially characterized in the Drosophila proteins Su(var)3-9, EZH2 and TrxG and plays a crucial role in substrate recognition and enzymatic activity.

Molecular Weight: 60 kDa

Pathways: [SARS-CoV-2 Protein Interactome](#)

Application Details

Application Notes: Recombinant MMSET / WHSC1 - SET protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Specific Activity: Histone methyltransferase with histone H3 'Lys-36' (H3K36me) methyltransferase activity. HMT Assay Conditions: 50 mM TrisCl, pH 8.6, 0.02 % Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 100 μ M SAM, 30 ng/ μ l Recombinant Nucleosomes, 30 ng/ μ l MMSET / WHSC1 - SET at 2 hours at room temperature. Activity was detected by fluorography.

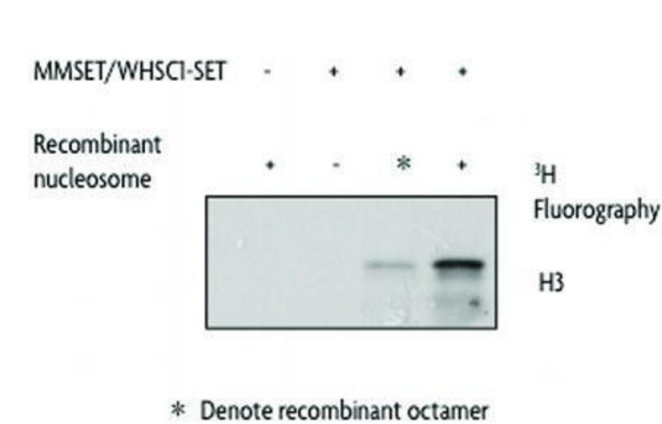
Restrictions: For Research Use only

Handling

Handling Advice: Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

Storage: -80 °C

Storage Comment: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.



Western Blotting

Image 1. MMSET / WHSC1 - SET activity assay using Recombinant Nucleosomes as substrates. Recombinant Nucleosomes were used as substrates in an assay measuring the methyltransferase activity of MMSET / WHSC1 - SET. Activity was detected by fluorography.



Western Blotting

Image 2. Recombinant MMSET / WHSC1 - SET protein gel. Recombinant MMSET / WHSC1 - SET run on an SDS-PAGE gel and stained with Coomassie blue.