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Datasheet for ABIN2669721

WHSC1L1 Protein (AA 1021-1320) (GST tag)

2 Images

Overview

Quantity:	50 µg
Target:	WHSC1L1
Protein Characteristics:	AA 1021-1320
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This WHSC1L1 protein is labelled with GST tag.
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant WHSC1L1 / NSD3 - SET peptide that includes amino acids 1021-1320 that contains the SET domain sequence of the human WHSC1L1 (NSD3) protein (accession number NP_075447.1) 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:	WHSC1L1
Alternative Name:	WHSC1L1 / NSD3 (WHSC1L1 Products)
Background:	WHSC1L1 (Wolf-Hirschhorn Syndrome Candidate 1-Like 1), also known as NSD3, is a histone methyltransferase that preferentially methylates lysine 4 and lysine 27 of histone H3. H3 lysine 4 methylation represents a specific tag for epigenetic transcriptional activation, while H3 lysine

Target Details

27 methylation is a mark for transcriptional repression. The WHSC1L1 gene is amplified in several cancers, including lung cancer and head and neck cancer, and may play a role in carcinogenesis. WHSC1L1 / NSD3 - SET includes the SET domain of WHSC1L1. 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

Application Details

Application Notes: Recombinant WHSC1L1 / NSD3 - SET protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Specific Activity: Histone methyltransferase with histone H3 lysine 4 and H3 lysine 27 methyltransferase activity. HMT Assay Conditions: 50 mM TrisCl, pH 8.6, 0.02 % Triton X-100, 2 mM MgCl₂, 1 mM TCEP, 100 μM SAM, 30 ng/μl Recombinant Nucleosomes, 400 nM WHSC1L1 / NSD3 - SET at 2 hours at room temperature. AlphaLISA was used for detection.

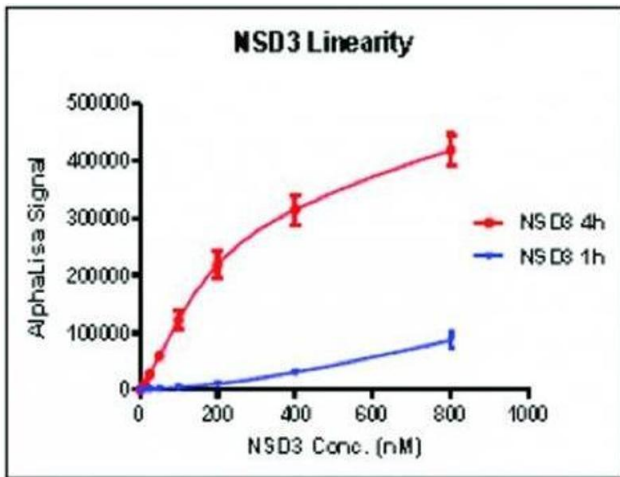
Restrictions: For Research Use only

Handling

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

Storage: -80 °C

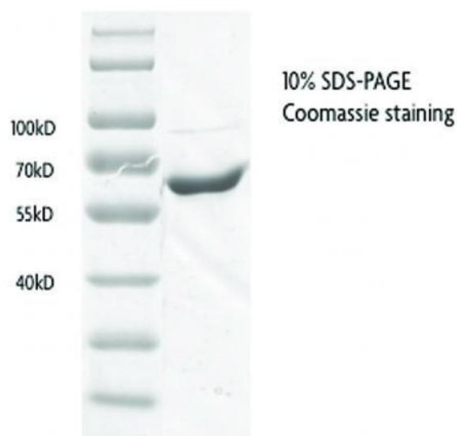
Storage Comment: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.



Screening Assay

Image 1. Recombinant WHSC1L1 / NSD3 - SET activity using AlphaLISA. WHSC1L1 / NSD3 - SET was used in an AlphaLISA assay to determine enzyme linearity. This data was generated and kindly provided courtesy of ChemPartner.

NSD3-SET



Western Blotting

Image 2. Recombinant WHSC1L1 / NSD3 - SET protein gel. Recombinant WHSC1L1 / NSD3 - SET run on an SDS-PAGE gel and stained with Coomassie blue.