

Product datasheet

Recombinant human KMT5A / SETD8 / Pr-SET7 protein ab196432

[2 Images](#)

Description

Product name	Recombinant human KMT5A / SETD8 / Pr-SET7 protein
Biological activity	50 µl reaction mix (50 mM Tris, pH 8.8, 1 mM EDTA, 1 mM DTT, 40 µM S-adenosylhomocysteine, and 0-6 µg ab196432) is added to the wells coated with the substrate. Incubate for 2 hr. Add antibody against methylated residue of histone H4, incubate 1 hr. Then, add secondary HRP-labeled antibody and incubate 30 min. Finally, add HRP chemiluminiscent substrates and read luminescence.
Purity	>= 84 % SDS-PAGE.
Expression system	Escherichia coli
Accession	<u>Q9NQR1-2</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	KAELQSEERKRIDELIESGKEEGMKIDLIDGKGRGVIATKQF SRGDFVVE YHGDLEITDAKKREALYAQDPSTGCYMYFQYLSKTYCVD ATRETNRLG RLINHSKCGNCQTKLHDIDGVPHLILIASRDIAAGEELLYDY GDRSKASIEAHPWLKH
Predicted molecular weight	44 kDa including tags
Amino acids	195 to 352
Tags	GST tag N-Terminus
Additional sequence information	Genbank accession number: NM_020382

Specifications

Our **Abpromise guarantee** covers the use of **ab196432** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Functional Studies

Form

Liquid

Preparation and Storage

Stability and Storage

Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 20% Glycerol (glycerin, glycerine), 0.49% Glutathione

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function

Protein-lysine N-methyltransferase that monomethylates both histones and non-histone proteins. Specifically monomethylates 'Lys-20' of histone H4 (H4K20me1). H4K20me1 is enriched during mitosis and represents a specific tag for epigenetic transcriptional repression. Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. Required for cell proliferation, probably by contributing to the maintenance of proper higher order structure of DNA during mitosis. Involved in chromosome condensation and proper cytokinesis. Nucleosomes are preferred as substrate compared to free histones. Mediates monomethylation of p53/TP53 at 'Lys-382', leading to repress p53/TP53-target genes.

Sequence similarities

Belongs to the histone-lysine methyltransferase family. PR/SET subfamily. Contains 1 SET domain.

Developmental stage

Not detected during G1 phase. First detected during S through G2 phases, and peaks during mitosis (at protein level).

Domain

Although the SET domain contains the active site of enzymatic activity, both sequences upstream and downstream of the SET domain are required for methyltransferase activity.

Cellular localization

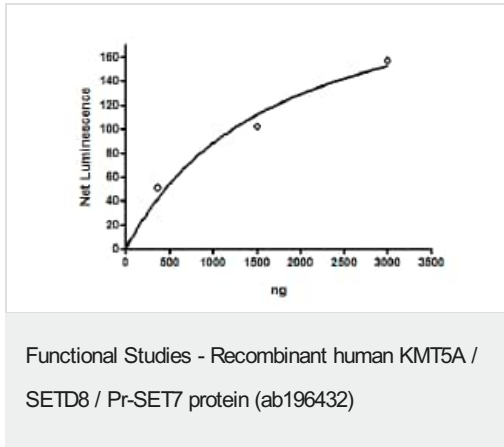
Nucleus. Chromosome. Specifically localizes to mitotic chromosomes. Associates with silent chromatin on euchromatic arms. Not associated with constitutive heterochromatin.

Images



SDS-PAGE analysis of 7.5 µg of ab196432 on a 4-20% SDS-PAGE gel stained with Coomassie.

SDS-PAGE - Recombinant human KMT5A / SETD8
/ Pr-SET7 protein (ab196432)



Specific activity of ab196432.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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