

SETD7 / SET7 Antibody (clone 5B4)
Mouse Monoclonal Antibody
Catalog # ALS15464**Specification**

SETD7 / SET7 Antibody (clone 5B4) - Product Information

Application	WB, IF, IHC
Primary Accession	Q8WTS6
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	41kDa KDa

SETD7 / SET7 Antibody (clone 5B4) - Additional Information**Gene ID** 80854**Other Names**

Histone-lysine N-methyltransferase SETD7, 2.1.1.43, Histone H3-K4 methyltransferase SETD7, H3-K4-HMTase SETD7, Lysine N-methyltransferase 7, SET domain-containing protein 7, SET7/9, SETD7, KIAA1717, KMT7, SET7, SET9

Target/Specificity

Human SET7

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

SETD7 / SET7 Antibody (clone 5B4) is for research use only and not for use in diagnostic or therapeutic procedures.

SETD7 / SET7 Antibody (clone 5B4) - Protein Information**Name** SETD7**Function**

Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3 (PubMed:11779497, PubMed:11850410, PubMed:12588998, PubMed:12540855, PubMed:16141209). H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation (PubMed:12588998, PubMed:12540855, PubMed:16141209). Plays a central role in the transcriptional activation of genes such as collagenase or insulin (PubMed:<a

[16141209](http://www.uniprot.org/citations/16141209), PubMed: [12588998](http://www.uniprot.org/citations/12588998)). Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription (PubMed: [16141209](http://www.uniprot.org/citations/16141209)). Has also methyltransferase activity toward non- histone proteins such as CGAS, p53/TP53, TAF10, and possibly TAF7 by recognizing and binding the [KR]-[STA]-K in substrate proteins (PubMed: [15099517](http://www.uniprot.org/citations/15099517), PubMed: [35210392](http://www.uniprot.org/citations/35210392), PubMed: [15525938](http://www.uniprot.org/citations/15525938), PubMed: [16415881](http://www.uniprot.org/citations/16415881)). Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II (PubMed: [15099517](http://www.uniprot.org/citations/15099517), PubMed: [16415881](http://www.uniprot.org/citations/16415881)). Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation (PubMed: [17108971" target="_blank">17108971](http://www.uniprot.org/citations/17108971), PubMed: [15525938" target="_blank">15525938](http://www.uniprot.org/citations/15525938), PubMed: [16415881" target="_blank">16415881](http://www.uniprot.org/citations/16415881)). Monomethylates 'Lys-491' of CGAS, promoting interaction between SGF29 and CGAS (By similarity).

Cellular Location

Nucleus. Chromosome

Tissue Location

Widely expressed. Expressed in pancreatic islets.

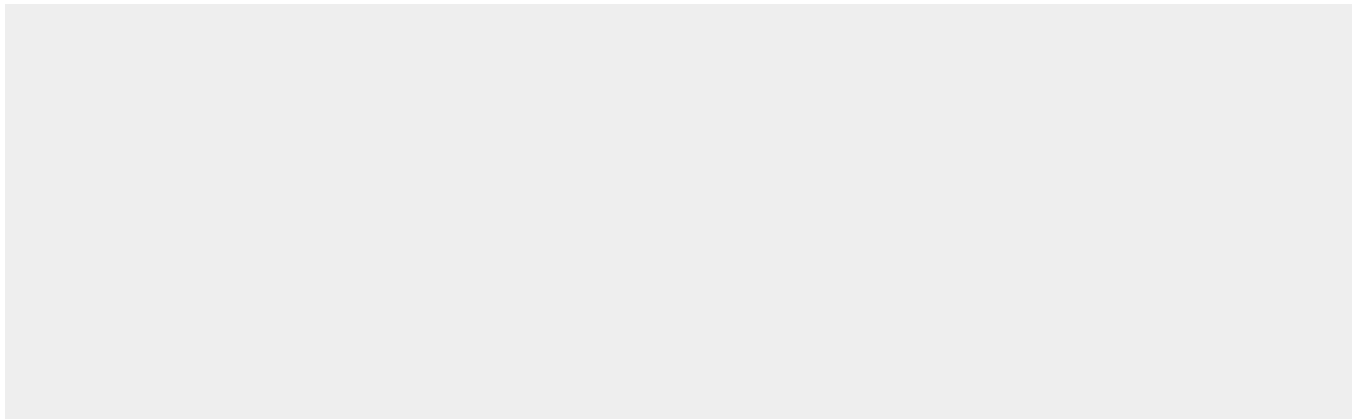
Volume

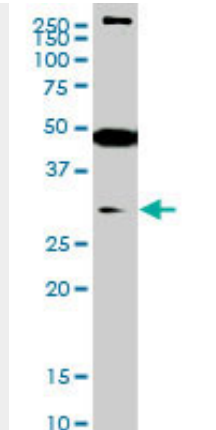
50 µl

SETD7 / SET7 Antibody (clone 5B4) - Protocols

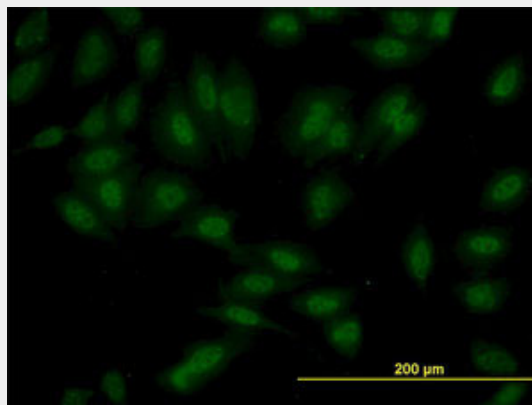
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

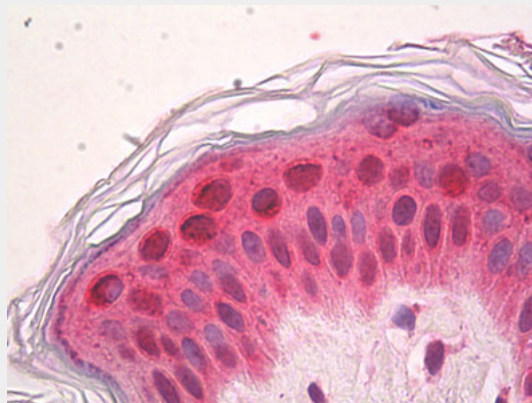
SETD7 / SET7 Antibody (clone 5B4) - Images



SET7 monoclonal antibody (M01), clone 5B4 Western blot of SET7 expression in Jurkat.



Immunofluorescence of monoclonal antibody to SET7 on HeLa cell. [antibody concentration 10 ug/ml]



Anti-SETD7 / SET7 antibody IHC of human skin.

SETD7 / SET7 Antibody (clone 5B4) - Background

Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Plays a central role in the transcriptional activation of genes such as collagenase or insulin. Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription. Has also methyltransferase activity toward non-histone proteins such as p53/TP53, TAF10, and possibly TAF7 by recognizing and binding the [KR]-[STA]-K in substrate proteins. Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II. Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation.

SETD7 / SET7 Antibody (clone 5B4) - References

Wang H.,et al.Mol. Cell 8:1207-1217(2001).
Nishioka K.,et al.Genes Dev. 16:479-489(2002).
Hillier L.W.,et al.Nature 434:724-731(2005).
Nagase T.,et al.DNA Res. 7:347-355(2000).
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