

**SETD7 / SET7 Antibody (clone S4E5)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS12537****Specification****SETD7 / SET7 Antibody (clone S4E5) - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | IHC, WB                |
| Primary Accession | <a href="#">Q8WTS6</a> |
| Reactivity        | Human                  |
| Host              | Mouse                  |
| Clonality         | Monoclonal             |
| Calculated MW     | 41kDa KDa              |

**SETD7 / SET7 Antibody (clone S4E5) - 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

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

**Precautions**

SETD7 / SET7 Antibody (clone S4E5) is for research use only and not for use in diagnostic or therapeutic procedures.

**SETD7 / SET7 Antibody (clone S4E5) - Protein Information****Name** SETD7**Function**

Histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3 (PubMed:<a href="http://www.uniprot.org/citations/11779497" target="\_blank">11779497</a>, PubMed:<a href="http://www.uniprot.org/citations/11850410" target="\_blank">11850410</a>, PubMed:<a href="http://www.uniprot.org/citations/12588998" target="\_blank">12588998</a>, PubMed:<a href="http://www.uniprot.org/citations/12540855" target="\_blank">12540855</a>, PubMed:<a href="http://www.uniprot.org/citations/16141209" target="\_blank">16141209</a>). H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation (PubMed:<a href="http://www.uniprot.org/citations/12588998" target="\_blank">12588998</a>, PubMed:<a href="http://www.uniprot.org/citations/12540855" target="\_blank">12540855</a>, PubMed:<a href="http://www.uniprot.org/citations/16141209" target="\_blank">16141209</a>). Plays a central role in the transcriptional activation of genes such as collagenase or insulin (PubMed:<a href="http://www.uniprot.org/citations/16141209" target="\_blank">16141209</a>, PubMed:<a href="http://www.uniprot.org/citations/12588998" target="\_blank">12588998</a>). Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription (PubMed:<a

href="http://www.uniprot.org/citations/16141209" target="\_blank">16141209</a>). 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:<a href="http://www.uniprot.org/citations/15099517" target="\_blank">15099517</a>, PubMed:<a href="http://www.uniprot.org/citations/35210392" target="\_blank">35210392</a>, PubMed:<a href="http://www.uniprot.org/citations/15525938" target="\_blank">15525938</a>, PubMed:<a href="http://www.uniprot.org/citations/16415881" target="\_blank">16415881</a>). Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II (PubMed:<a href="http://www.uniprot.org/citations/15099517" target="\_blank">15099517</a>, PubMed:<a href="http://www.uniprot.org/citations/16415881" target="\_blank">16415881</a>). Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation (PubMed:<a href="http://www.uniprot.org/citations/17108971" target="\_blank">17108971</a>, PubMed:<a href="http://www.uniprot.org/citations/15525938" target="\_blank">15525938</a>, PubMed:<a href="http://www.uniprot.org/citations/16415881" target="\_blank">16415881</a>). Monomethylates 'Lys-491' of CGAS, promoting interaction between SGF29 and CGAS (By similarity).

**Cellular Location**

Nucleus. Chromosome

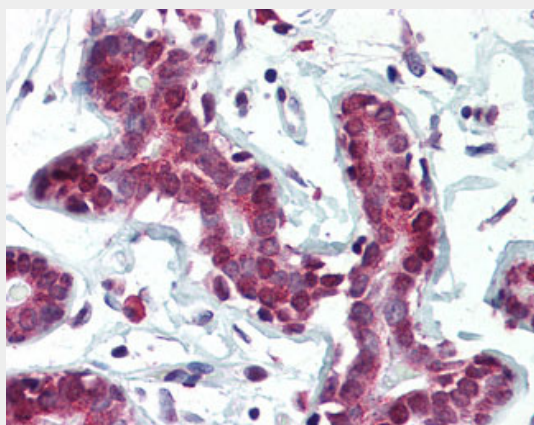
**Tissue Location**

Widely expressed. Expressed in pancreatic islets.

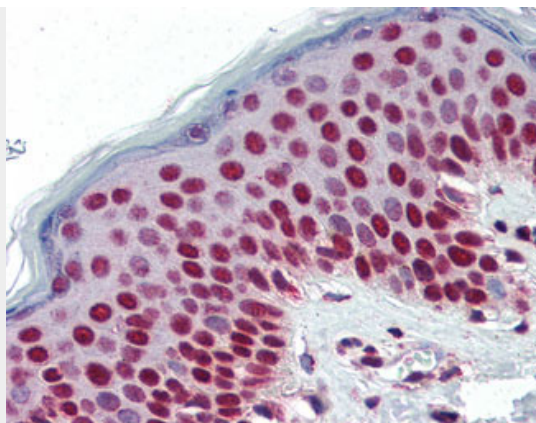
**SETD7 / SET7 Antibody (clone S4E5) - Protocols**

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

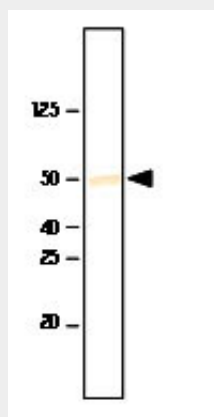
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**SETD7 / SET7 Antibody (clone S4E5) - Images**

Anti-SETD7 / SET7 antibody IHC of human breast.



Anti-SETD7 / SET7 antibody IHC of human skin.



Recombinant SET7/9 was resolved by electrophoresis, transferred to PVDF membrane and probed with...

#### **SETD7 / SET7 Antibody (clone S4E5) - 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 S4E5) - 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).
- Martens J.H., et al. Mol. Cell. Biol. 23:1808-1816(2003).