

Anti-SET7 antibody ab3826

[2 References](#) [1 图像](#)

概述

| | |
|--------------|---|
| 产品名称 | Anti-SET7抗体 |
| 描述 | 兔多克隆抗体to SET7 |
| 宿主 | Rabbit |
| 特异性 | The antibody recognises the Set9 protein in yeast extract and also recognises the recombinant his tagged protein. The band is not detected in the set9 deletion mutant. |
| 经测试应用 | 适用于: WB |
| 种属反应性 | 与反应: Schizosaccharomyces pombe |
| 免疫原 | Recombinant full length protein of S. pombe SET7/SET9. 参阅Abcam的 专有抗源政策 |
| 常规说明 | Accession NP_588078 (SPCC4B3.12) |

This antibody was used to demonstrate that a previously uncharacterized SET domain protein, Set9, is responsible for H4-K20 methylation in the fission yeast Schizosaccharomyces pombe. Surprisingly, H4-K20 methylation does not have any apparent role in the regulation of gene expression or heterochromatin function. Rather, we find the modification has a role in DNA damage response. Loss of Set9 activity or mutation of H4-K20 markedly impairs cell survival after genotoxic challenge and compromises the ability of cells to maintain checkpoint mediated cell cycle arrest. Genetic experiments link Set9 to Crb2, a homolog of the mammalian checkpoint protein 53BP1, and the enzyme is required for Crb2 localization to sites of DNA damage. These results argue that H4-K20 methylation functions as a "histone mark" required for the recruitment of the checkpoint protein Crb2.

性能

| | |
|---------------------------|--|
| 形式 | Liquid |
| 存放说明 | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| 存储溶液 | Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4 |
| 纯度 | IgG fraction |
| Primary antibody说明 | This antibody was used to demonstrate that a previously uncharacterized SET domain protein, Set9, is responsible for H4-K20 methylation in the fission yeast Schizosaccharomyces pombe. Surprisingly, H4-K20 methylation does not have any apparent role in the regulation of gene |

expression or heterochromatin function. Rather, we find the modification has a role in DNA damage response. Loss of Set9 activity or mutation of H4-K20 markedly impairs cell survival after genotoxic challenge and compromises the ability of cells to maintain checkpoint mediated cell cycle arrest. Genetic experiments link Set9 to Crb2, a homolog of the mammalian checkpoint protein 53BP1, and the enzyme is required for Crb2 localization to sites of DNA damage. These results argue that H4-K20 methylation functions as a "histone mark" required for the recruitment of the checkpoint protein Crb2.

克隆 多克隆
同种型 IgG

应用

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“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|-----------|------|--|
| WB | | 1/500 - 1/1000. Detects a band of approximately 55 kDa (predicted molecular weight: 55 kDa). |

靶标

功能 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. Also able to demethylated 'Lys-372' of p53/TP53 in vitro.

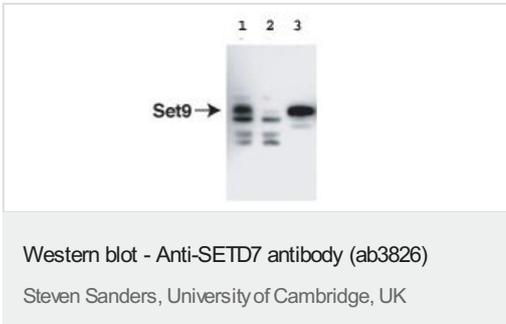
组织特异性 Widely expressed. Expressed in pancreatic islets.

序列相似性 Belongs to the histone-lysine methyltransferase family. SET7 subfamily.
 Contains 3 MORN repeats.
 Contains 1 SET domain.

结构域 The SET domain is necessary but not sufficient for histone methyltransferase activity.

细胞定位 Nucleus. Chromosome.

图片



Lysate: Fission yeast extract

Lane 1: Wildtype

Lane 2: Set9 deletion

Lane 3: His - 6 - tagged Set9 (1-5 ng).

Dilution of the antibody: 1 /1000.

Size of the band is 55 kDa.

Lysate: Fission yeast extract

Lane 1: Wildtype

Lane 2: Set9 deletion

Lane 3: His - 6 - tagged Set9 (1-5 ng).

Dilution of the antibody: 1 /1000.

Size of the band is 55 kDa.

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