abcam

Product datasheet

Anti-Histone H2A.X antibody ab11175

★★★★★ 43 Abreviews 153 References 画像数 3

製品の概要

製品名	Anti-Histone H2A.X antibody
製品の詳細	Rabbit polyclonal to Histone H2A.X
由来種	Rabbit
アプリケーション	**適用あり:** WB, IHC-P
種交差性	**交差種:** Mouse, Human **交差が予測される動物種:** Rabbit, Rhesus monkey, Gorilla
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	IHC: Human ovarian carcinoma tissue WB: HEK293T, L1210 and F9 cell lysates
特記事項	The phosphorylated form of this Ab is known as gamma H2A.X, when phosphorylated at Ser 139. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
バッファー	pH: 7 Preservative: 0.1% Sodium azide Constituent: Tris citrate/phosphate
精製度	Immunogen affinity purified
特記事項（精製）	Antibodies were affinity purified using the peptide immobilized on solid support.
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab11175の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★★ (23)	Use a concentration of 0.1 µg/ml. Detects a band of approximately 15 kDa.
IHC-P	★★★★★ (2)	1/1000.

ターゲット情報

機能 Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. Required for checkpoint-mediated arrest of cell cycle progression in response to low doses of ionizing radiation and for efficient repair of DNA double strand breaks (DSBs) specifically when modified by C-terminal phosphorylation.

配列類似性 Belongs to the histone H2A family.

発生段階 Synthesized in G1 as well as in S-phase.

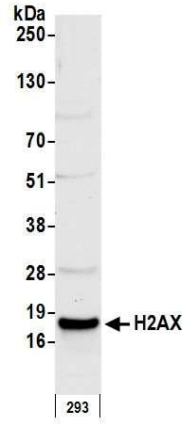
ドメイン The [ST]-Q motif constitutes a recognition sequence for kinases from the PI3/PI4-kinase family.

翻訳後修飾 Phosphorylated on Ser-140 (to form gamma-H2AFX or H2AX139ph) in response to DNA double strand breaks (DSBs) generated by exogenous genotoxic agents and by stalled replication forks, and may also occur during meiotic recombination events and immunoglobulin class switching in lymphocytes. Phosphorylation can extend up to several thousand nucleosomes from the actual site of the DSB and may mark the surrounding chromatin for recruitment of proteins required for DNA damage signaling and repair. Widespread phosphorylation may also serve to amplify the damage signal or aid repair of persistent lesions. Phosphorylation of Ser-140 (H2AX139ph) in response to ionizing radiation is mediated by both ATM and PRKDC while defects in DNA replication induce Ser-140 phosphorylation (H2AX139ph) subsequent to activation of ATR and PRKDC. Dephosphorylation of Ser-140 by PP2A is required for DNA DSB repair. In meiosis, Ser-140 phosphorylation (H2AX139ph) may occur at synaptonemal complexes during leptotene as an ATM-dependent response to the formation of programmed DSBs by SPO11. Ser-140 phosphorylation (H2AX139ph) may subsequently occurs at unsynapsed regions of both autosomes and the XY bivalent during zygotene, downstream of ATR and BRCA1 activation. Ser-140 phosphorylation (H2AX139ph) may also be required for transcriptional repression of unsynapsed chromatin and meiotic sex chromosome inactivation (MSCI), whereby the X and Y chromosomes condense in pachytene to form the heterochromatic XY-body. During immunoglobulin class switch recombination in lymphocytes, Ser-140 phosphorylation (H2AX139ph) may occur at sites of DNA-recombination subsequent to activation of the activation-induced cytidine deaminase AICDA. Phosphorylation at Tyr-143 (H2AXY142ph) by BAZ1B/WSTF determines the relative recruitment of either DNA repair or pro-apoptotic factors. Phosphorylation at Tyr-143 (H2AXY142ph) favors the recruitment of APBB1/FE65 and pro-apoptosis factors such as MAPK8/JNK1, triggering apoptosis. In contrast, dephosphorylation of Tyr-143 by EYA proteins (EYA1, EYA2, EYA3 or EYA4) favors the recruitment of MDC1-

containing DNA repair complexes to the tail of phosphorylated Ser-140 (H2AX139ph). Monoubiquitination of Lys-120 (H2AXK119ub) by RING1 and RNF2/RING2 complex gives a specific tag for epigenetic transcriptional repression. Following DNA double-strand breaks (DSBs), it is ubiquitinated through 'Lys-63' linkage of ubiquitin moieties by the E2 ligase UBE2N and the E3 ligases RNF8 and RNF168, leading to the recruitment of repair proteins to sites of DNA damage. Monoubiquitination and ionizing radiation-induced 'Lys-63'-linked ubiquitination are distinct events.

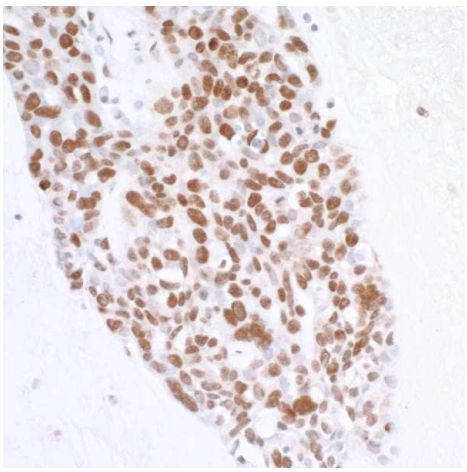
細胞内局在 Nucleus. Chromosome.

画像



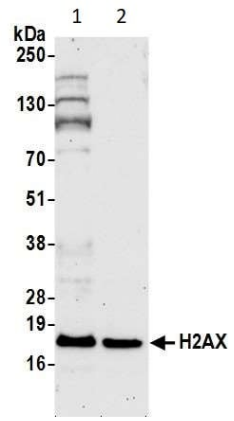
Western blot - Anti-Histone H2A.X antibody (ab11175)

Anti-Histone H2A.X antibody (ab11175) at 0.1 µg/ml + HEK293T cells at 50 µg



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.X antibody (ab11175)

mmunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma tissue labelling H2A.X with ab11175 at 1 µg/mL.



Western blot - Anti-Histone H2A.X antibody (ab11175)

All lanes : Anti-Histone H2A.X antibody (ab11175) at 0.1 µg/ml

Lane 1 : F9 cell lysate (prepared using RIPA lysis buffer)

Lane 2 : L1210 cell lysate (prepared using RIPA lysis buffer)

Lysates/proteins at 50 µg per lane.

Exposure time: 30 seconds

Detection: Chemiluminescence

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