Datasheet for ABIN6971768

anti-H2AFX antibody (pTyr142)

2 Images

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Overview

Quantity:	100 µL
Target:	H2AFX
Binding Specificity:	pTyr142
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Dot Blot (DB)

Product Details

Immunogen:	This antibody was raised against a peptide containing phospho-tyrosine 142 of human histone H2A.X.
Isotype:	IgG
Characteristics:	Histone H2A.XY142ph (H2A histone family member X) replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries that require DNA as a template. Histones thereby play a central role in transcriptional regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called the histone code, and nucleosome remodeling. Histone H2AX is 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. Tyrosine phosphorylation at position 142 on Histone H2A.X is constitutive and is mediated by BAZ1B/WSTF. This mark distinguishes between

Product Details

	apoptotic and DNA repair responses to genotoxic stress. Histone H2A.XY142ph antibody (pAb) was raised in a Rabbit host. It has been validated for use in Dot blot and Western blot, it has been shown to react with Human samples, but it is predicted that it will react with a wide range of sample types.
Purification:	Affinity Purified

Target Details

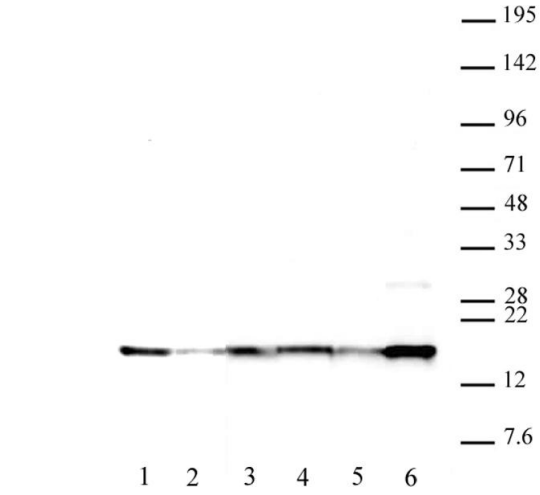
Target:	H2AFX
Alternative Name:	Histone H2A.X (H2AFX Products)
Molecular Weight:	15 kDa
NCBI Accession:	NP_002096
Pathways:	Telomere Maintenance, DNA Damage Repair, Positive Regulation of Response to DNA Damage Stimulus

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Buffer:	Purified IgG in PBS with 30 % glycerol and 0.035 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage.



Western Blotting

Image 1. Histone H2A.XY142ph antibody (pAb) tested by Western blot. 25 µg of U2OS nuclear extract untreated (lanes 1, 3, 5) or treated with 5 uM camptothecin for 8 hours (lanes 2, 4, 6) probed with the indicated antibody. Lanes 1 & 2: H2A.XY142ph antibody (pAb) at a 1:500 dilution (expected decrease with treatment). Lanes 3 & 4: H2A.X antibody (pAb), at a 1:50,000 dilution (no change expected). Lanes 5 & 6: H2A.XS139ph antibody (pAb), at a 1:20,000 dilution (increase expected with treatment).

Dot Blot

Image 2. Histone H2A.XY142ph antibody (pAb) tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of Histone H2A.XY142ph antibody for phospho Tyr142 of Histone H2A.X. Peptides corresponding to the immunogen and the unmodified version of the immunogen were spotted onto PVDF and probed with the antibody at 1:100,000. The amount of peptide (picomoles) spotted is indicated next to each row. Lane 1: Phospho-Tyr142 peptide. Lane 2: Unmodified Tyr142 peptide. Lane 3: Phospho-Ser139 peptide. Lane 4: Unmodified Ser139 peptide.