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antibody and ELISA experts

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3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-H2AX pS139 H2AFX Antibody

Catalog Number: A00241

About H2AFX

Histone H2A.X (phospho S139) antibody is ideal for western blotting and ELISA. Histones play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA is wrapped around histone-groups, consisting of the core histones H2A, H2B, H3 and H4. As a reaction on DNA Double-strand breaks (DSB) H2AX becomes phosphorylated on serine 139, called gamma-H2AX. ATM, ATR and PRKDCs, kinases of the PI3-family, are responsible for this phosphorylation. The modification can happen accidentally during replication fork collapse, exogenous genotoxic agents, may also occur during meiotic recombination events and immunoglobulin class switching in lymphocytes, in the response to ionizing radiation but also during controlled physiological processes such as V(D)J recombination. Mutagenesis experiments have shown that the modification is necessary for the proper formation of ionizing radiation induced foci in response to double strand breaks, but is not required for the recruitment of proteins to the site of DSBs. Gamma-H2AX is a sensitive target for looking at DSBs in cells. Dephosphorylation of Ser-140 by PP2A is required for DNA DSB repair. The role of the phosphorylated form of the histone in DNA repair is under. Anti-H2AX pS139 is ideal for researched interested in Histones, DNA Damage and Repair, and Epigenetics.

Overview

Product Name	Anti-H2AX pS139 H2AFX Antibody
Reactive Species	Human
Description	Boster Bio Anti-H2AX pS139 H2AFX Antibody (Catalog # A00241). Tested in ELISA, WB applications. This antibody reacts with Human.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store Histone H2A.X (phospho S139) antibody at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P16104

Technical Details

Immunogen	Anti-H2AX pS139 purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a phosphorylated synthetic peptide corresponding to the C-terminal region containing serine 139 of human H2AX protein.
Predicted Reactive Species	Bovine, Canine, Equine, Guinea Pig, Pig

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Isotype	IgG
Form	Liquid (sterile filtered)
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	H2AX pS139 is directed against the phosphorylated form of human H2AX protein at the pS139 residue. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity with non-phosphorylated human H2AX is minimal by ELISA and western blot. A BLAST analysis was used to suggest 100% cross-reactivity with H2AX from human based on the sequence homology with the immunogen. Reactivity against homologues from other sources is not known.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: ELISA: 1:5,000 WB: 1:1,000

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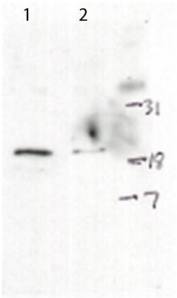
Anti-H2AX pS139 H2AFX Antibody (A00241) Images



Western blot analysis of H2AXpS139 expression in HeLa Lysate stimulated with adriamycin (24 hr) (lane 1) and HeLa Lysate unstimulated (lane 2) using rabbit anti-H2AXpS139 affinity purified polyclonal antibody (Catalog # A00241) at 1:1000. Predicted/Observed size: 15.1 kDa, ~18 kDa for H2AXpS139. Other band(s): none. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).

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