Human Phospho-Histone H2AX (S139) Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2207D
Catalog Number: MAB2288

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Histone H2AX when phosphorylated at S139 in Western blots.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2207D
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phospho-peptide containing human Histone H2AX S139 site Accession # P16104
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

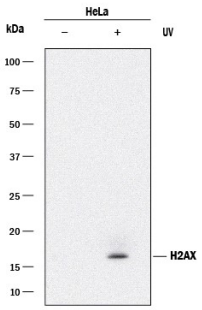
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

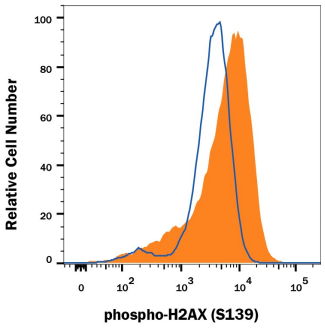
DATA

Western Blot



Detection of Human Histone H2AX by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 20 mJ/cm2 ultraviolet light (UV) followed by a 30 minute recover. PVDF membrane was probed with 0.25 µg/mL of Rabbit Anti-Human Phospho-Histone H2AX (S139) Monoclonal Antibody (Catalog # MAB2288) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Histone H2AX at approximately 17 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Intracellular Staining by Flow Cytometry



Detection of Human Phospho-Histone H2AX (S139) in Camptothecin-treated PBMC by Flow Cytometry. Human PBMC untreated (open histogram) or treated with 1 µM Camptothecin (Catalog # 1100, filled histogram) overnight were stained with Rabbit Anti-Human Phospho-Histone H2AX (S139) Monoclonal Antibody (Catalog # MAB2288), followed by PE-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0110). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with 90% methanol. View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Histone H2AX is a core histone protein that is phosphorylated at S139 in cells exposed to DNA double-strand break-inducing agents, such as ionizing radiation. The S139 phosphorylated H2AX, termed γ-H2AX, marks the site of DNA double-strand breaks and serves to recruit cell cycle checkpoint and DNA repair factors to the site of damage.

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