For Research Use Only

Phospho-Histone H2A.X (Ser139) Recombinant antibody

Catalog Number:83307-2-RR 1 Publications

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Basic Information

Catalog Number:
83307-2-RR

Size:
1000 ug/ml

Source:
Rabbit

Isotype:
IgG

GenBank Accession Number:
BC013416

GeneID (NCBI):
3014

UNIPROT ID:
P16104

Full Name:
H2A histone family, member X

Calculated MW:
15 kDa

Observed MW:
15 kDa

Purification Method:
Protein A purfication

CloneNo.:
5N19

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:2000-1:8000
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB

Species Specificity:
human

Cited Species:
human

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : Staurosporine treated Jurkat cells,

IHC : Jurkat cells,

IF/ICC : UV treated HeLa cells,

Background Information

The histone variant H2AX is a major component of the DNA damage response (DDR), especially functioning in amplifying DNA damage signals. In response to DNA double-strand breaks (DSBs), H2AX is instantaneously phosphorylated at Ser139 (a form called cH2AX) by the kinases ATM and ATR. The phosphorylation of H2AX at Ser139, resulting in the formation of gamma-H2AX puncta in the nuclei, is an early event in the cellular response to DNA damage. Therefore, phospho-Histone H2A. X (Ser139) is also known as γ H2AX. The phosphorylation site of H2AX, Ser139, has also been described as Ser140 in other literature, and they recognize the same amino acid site. (PMID: 22908299, PMID: 30106130, PMID:22941631)

Notable Publications

Author	Pubmed ID	Journal	Application
Hanlin Hu	38735270	Transl Oncol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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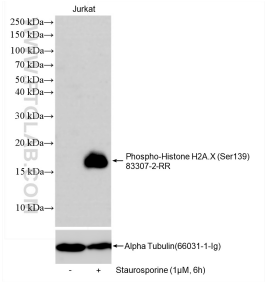
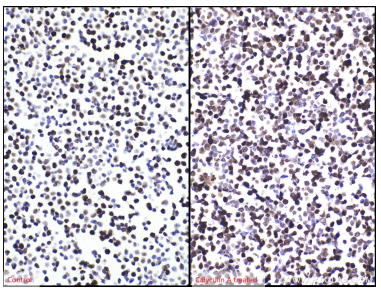
Selected Validation Data

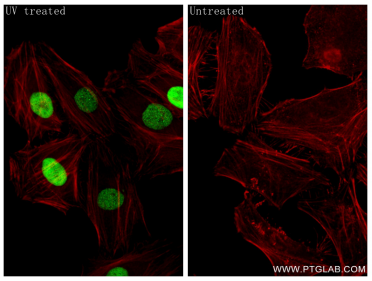


Non-treated Jurkat cells, and staurosporine treated Jurkat cells were subjected to SDS PAGE followed by western blot with 83307-2-RR (Phospho-Histone H2A.X (Ser139) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as loading control.

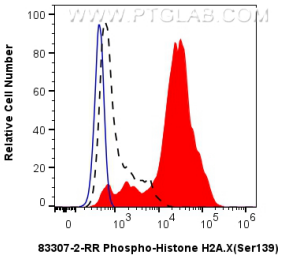


Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 83307-2-RR (Phospho-Histone H2A.X (Ser139) antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 83307-2-RR (Phospho-Histone H2A.X (Ser139) antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed UV treated HeLa cells using Phospho-Histone H2A.X (Ser139) antibody (83307-2-RR, Clone: 5N19) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



1x10^6 Jurkat cells untreated (dashed lines) or treated with Staurosporine which intracellularly stained with 0.06 ug Phospho-Histone H2A.X (Ser139) Recombinant antibody (83307-2-RR, Clone:5N19) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.06 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.