

For Research Use Only

Phospho-Histone H3 (Ser10) Monoclonal antibody

Catalog Number: 66863-1-Ig **22 Publications**



Basic Information

Catalog Number: 66863-1-Ig	GenBank Accession Number: NM_003529	Purification Method: Protein G purification
Size: 100ul , Concentration: 1500 ug/ml by Nanodrop;	GeneID (NCBI): 8350	CloneNo.: 4C7G2
Source: Mouse	UNIPROT ID: P68431	Recommended Dilutions: WB: 1:5000-1:50000 IHC: 1:1000-1:4000 IF-P: 1:50-1:500 IF-Fro: 1:200-1:800 IF/ICC: 1:600-1:2400 FC (Intra): 0.25 ug per 10 ⁶ cells in a 100 µl suspension
Isotype: IgG1	Full Name: histone cluster 1, H3a	
	Calculated MW: 15 kDa	
	Observed MW: 15-17 kDa	

Applications

Tested Applications: WB, IHC, IF/ICC, IF-P, IF-Fro, FC (Intra), ELISA	Positive Controls: WB : HeLa cells, HEK-293 cells, Jurkat cells IHC : human lung cancer tissue, human renal cell carcinoma tissue, Jurkat cells, mouse kidney tissue IF-P : human breast cancer tissue, mouse testis tissue IF-Fro : mouse brain tissue, IF/ICC : C2C12 cells, HeLa cells, MCF-7 cells FC (Intra) : nocodazole treated HeLa cells,
Cited Applications: WB, IHC, IF	
Species Specificity: human, mouse, rat, pig	
Cited Species: human, mouse, rat, chicken	
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

Background Information

Phospho-histone-H3 (PHH3) is a core histone protein, which in its phosphorylated state forms the principal constituents of eukaryotic chromatin, with histone H3 being phosphorylated at serine (Ser) 10 or Ser28 as well as its phosphorylation of Ser10 being strongly correlated with the late G2 to M-phase transition in mammalian mitotic cells. On the basis of previous research, a few cell line- and animal model-based researches have displayed an increase in phosphorylation of histone H3 at Ser10 (H3S10ph), the only histone marker that is involved in carcinogenesis and cellular transformation. Histone H3 phosphorylation on serine-10 is specific to mitosis and phosphorylated histone H3 (PHH3) proliferation markers (as counts defined per area or as indices defined per cell numbers) are increasingly being used to evaluate proliferation in various tumors.

Notable Publications

Author	Pubmed ID	Journal	Application
Steven J Edwards	33195398	Front Mol Biosci	IF
Kensuke Iwasa	36436172	Neurochem Res	WB
Yang Wang	36405746	Front Immunol	WB

Storage

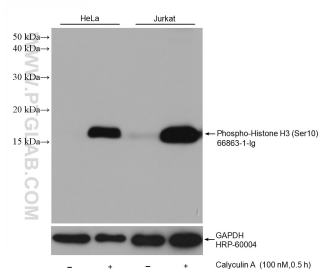
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

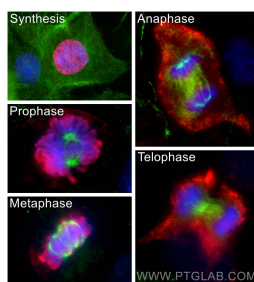
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

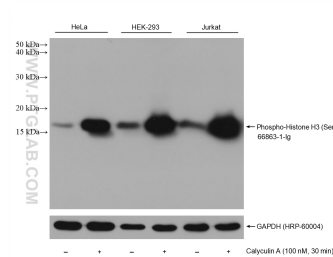
Selected Validation Data



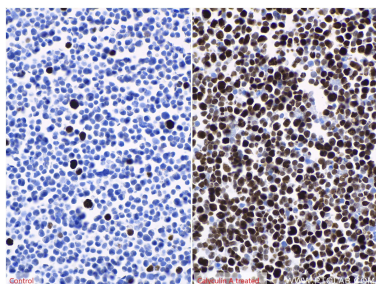
Various lysates were subjected to SDS PAGE followed by western blot with 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and rebotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



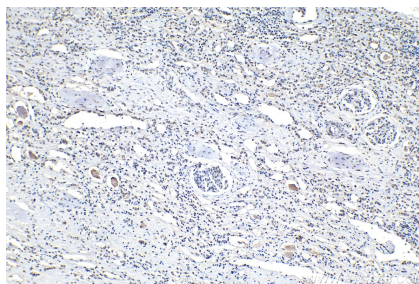
Immunofluorescent analysis of (4% PFA) fixed C2C12 cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1200 and CoraLite@594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green).



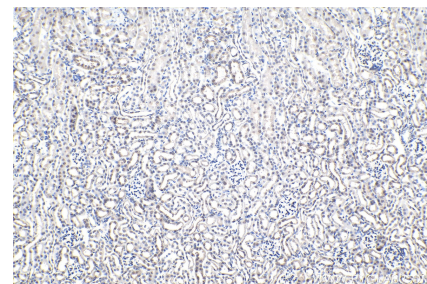
Non-treated and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. The membrane was stripped and rebotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control.



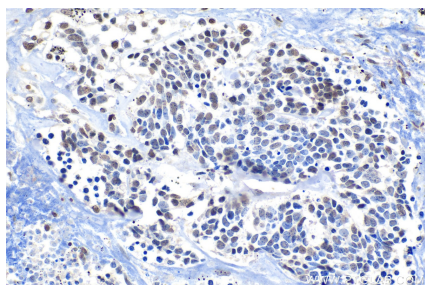
Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



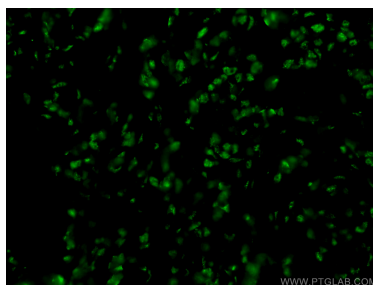
Immunohistochemical analysis of paraffin-embedded human renal cell carcinoma tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



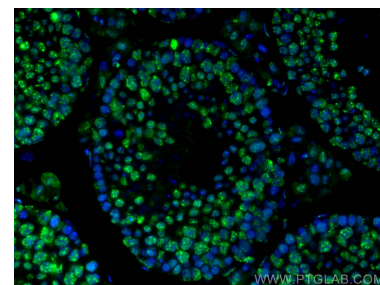
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



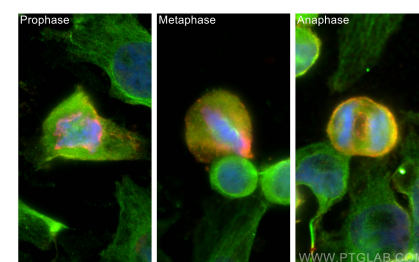
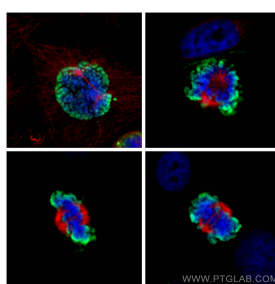
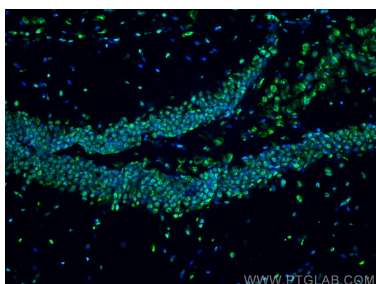
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



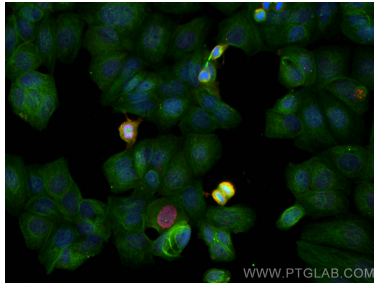
Immunofluorescent analysis of (4% PFA) fixed human breast cancer tissue using 66863-1-Ig (PHH3) antibody at dilution of 1:100 and CoraLite488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed mouse testis tissue using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).

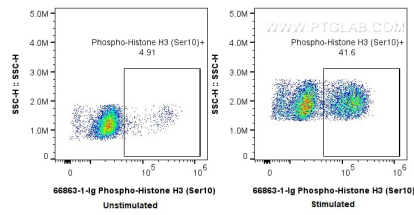


Immunofluorescent analysis of (4% PFA) fixed frozen OCT-embedded mouse brain tissue using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1).



Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1500 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green).

Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1), Beta Tubulin antibody (80713-1-RR, Clone: 2013, red).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1500 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green).

1x10⁶ nocodazole treated HeLa cells were intracellularly stained with 0.25 ug Phospho-Histone H3 (Ser10) Monoclonal antibody (66863-1-Ig, Clone:4C7G2) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1), and 0.25 ug Mouse IgG1 isotype control Mouse McAb (66360-1-Ig, Clone: 1F8D3). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.