

For Research Use Only

# Phospho-Histone H3 (Ser10) Monoclonal antibody, PBS Only (Detector)

Catalog Number: 66863-1-PBS



## Basic Information

<b>Catalog Number:</b> 66863-1-PBS	<b>GenBank Accession Number:</b> NM_003529	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 8350	<b>CloneNo.:</b> 4C7G2
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P68431	
<b>Isotype:</b> IgG1	<b>Full Name:</b> histone cluster 1, H3a	
	<b>Calculated MW:</b> 15 kDa	
	<b>Observed MW:</b> 15-17 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, IF-P, FC (Intra), Cytometric bead  
array, Indirect ELISA

**Species Specificity:**  
human, mouse, rat, pig

## Product Information

66863-1-PBS targets Phospho-Histone H3 (Ser10) as part of a matched antibody pair:

MP50178-1: 68345-1-PBS capture and 66863-1-PBS detection (validated in Cytometric bead array)

Unconjugated mouse monoclonal antibody pair in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## 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.

## Storage

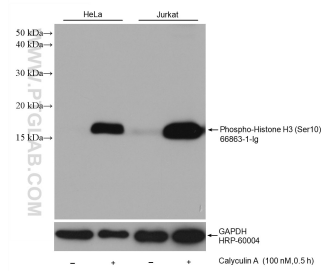
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

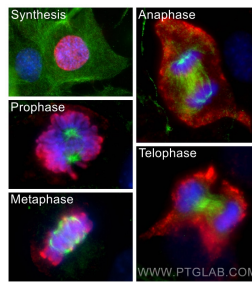
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)      E: proteintech@ptglab.com  
W: ptglab.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

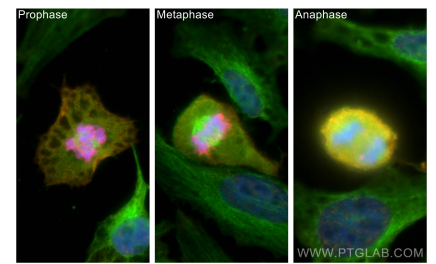
## Selected Validation Data



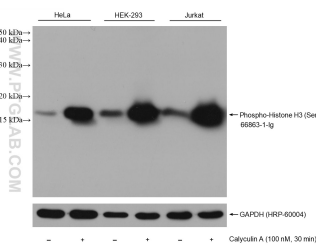
Various lysates were subjected to SDS PAGE followed by western blot with 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control. This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



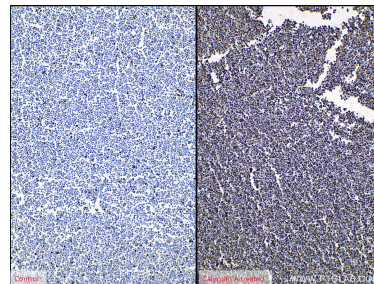
Immunofluorescent analysis of (4% PFA) fixed C2C12 cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1200 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



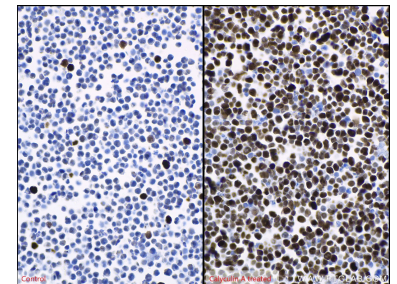
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1500 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



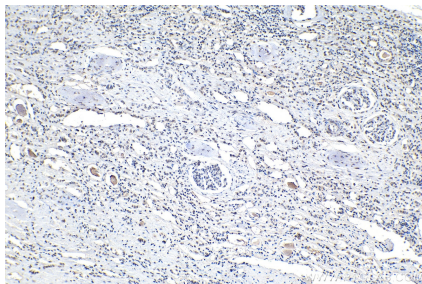
Non-treated and Calyculin A treated cells were subjected to SDS PAGE followed by western blot with 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control. This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



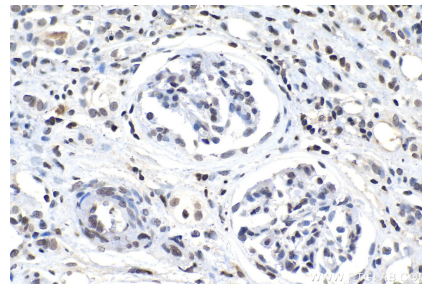
Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



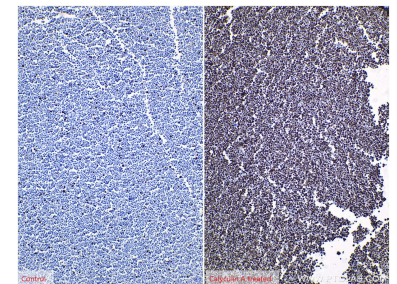
Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



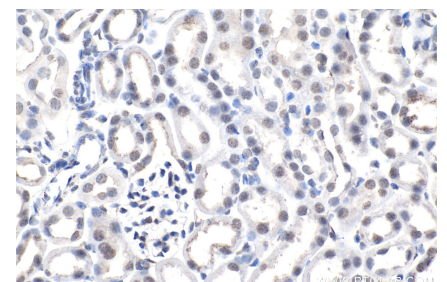
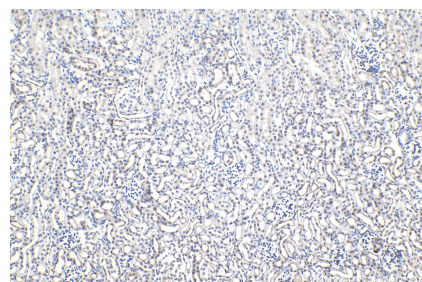
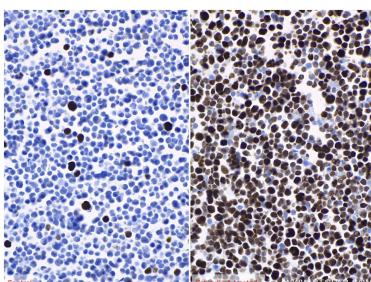
Immunohistochemical analysis of paraffin-embedded human renal cell carcinoma tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



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 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.

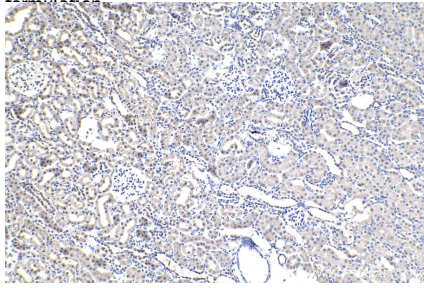


Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:4000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.

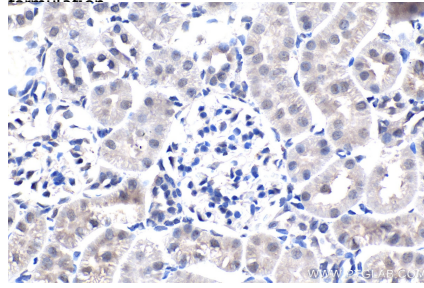




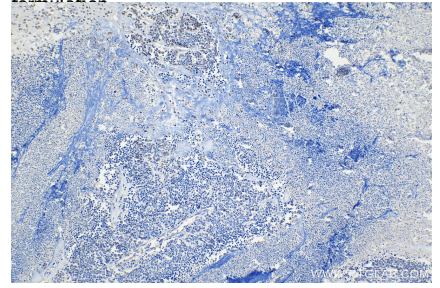
Immunohistochemical analysis of paraffin-embedded Jurkat cells slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:4000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



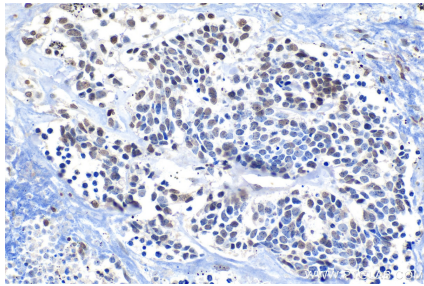
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



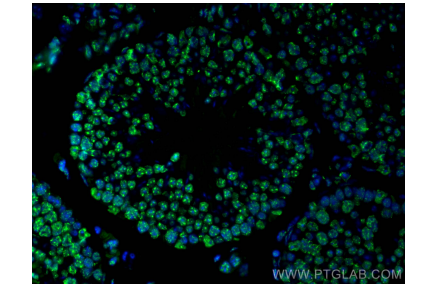
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



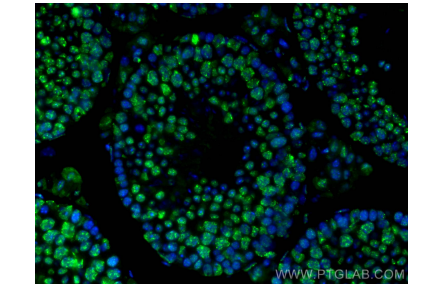
Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



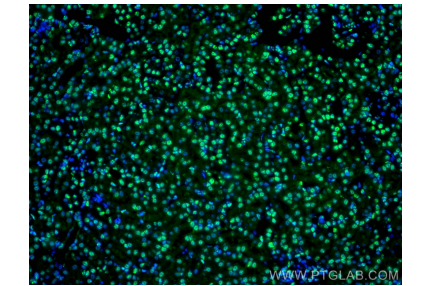
Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



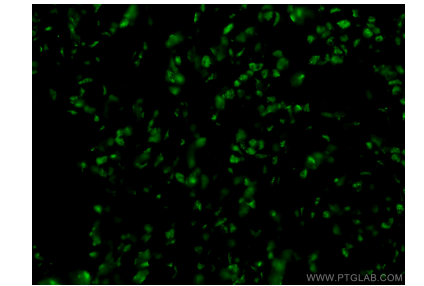
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



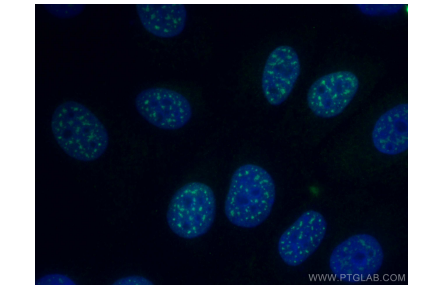
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66863-1-Ig (Phospho-Histone H3 (Ser10) antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



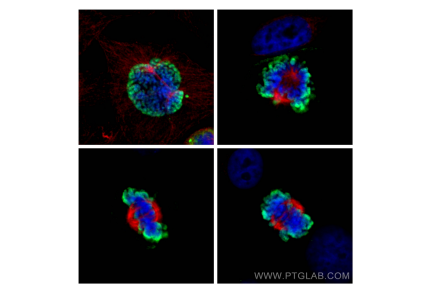
Immunofluorescent analysis of (4% PFA) fixed mouse testis tissue using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:400 and CoralLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



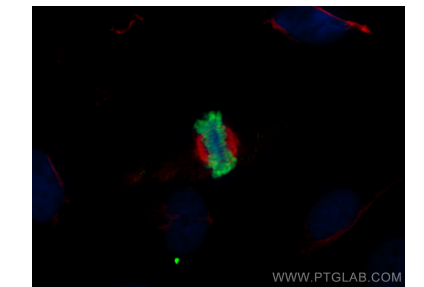
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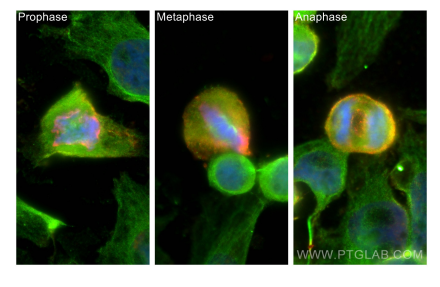
Immunofluorescent analysis of (4% PFA) fixed mouse kidney tissue using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:400 and CoralLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



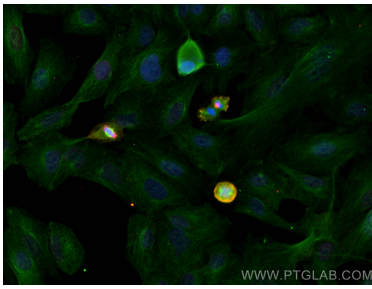
Immunofluorescent analysis of (4% PFA) fixed human breast cancer tissue using 66863-1-Ig (PHH3 antibody) at dilution of 1:100 and CoralLite488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



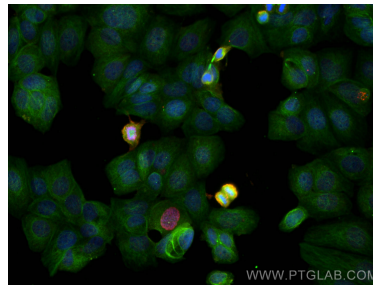
Immunofluorescent analysis of (4% PFA) fixed MCF-7 cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:400 and CoralLite@488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



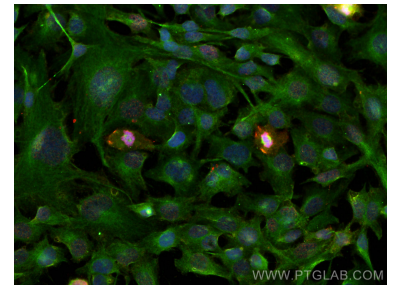
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1), Beta Tubulin antibody (80713-1-RR, Clone: 2O13, red). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:800 and Multi-rAb CoraLite® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002), Beta Tubulin antibody (80713-1-RR, Clone: 2O13, red). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



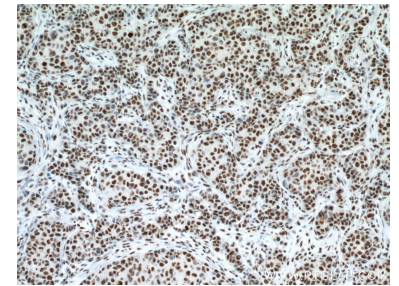
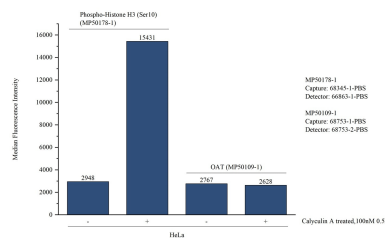
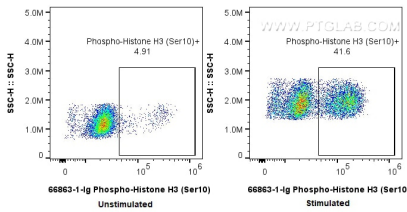
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1500 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



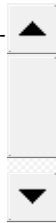
Immunofluorescent analysis of (4% PFA) fixed A549 cells using Phospho-Histone H3 (Ser10) antibody (66863-1-Ig, Clone: 4C7G2) at dilution of 1:1500 and CoraLite®594-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), Alpha Tubulin antibody (11224-1-AP, green). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.

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). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.

Immunofluorescent analysis of (4% PFA) fixed SKOV-3 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). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.



1x10<sup>6</sup> 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. This data was developed using the same antibody clone with 66863-1-PBS in a



Cytometric bead array in cell lysate using MP50178-1, Phospho-Histone H3 (Ser10) Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 68345-1-PBS. Detection antibody: 66863-1-PBS. Cell lysate: Non-treated HeLa and Calyculin A treated HeLa (30µg/well). Non-related target OAT Monoclonal Matched Antibody Pair (MP50109-1P) was served as control.

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66863-1-Ig (H3S10-phospho antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66863-1-PBS in a different storage buffer formulation.