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Datasheet for 200-901-MH7S

PLK1 Antibody

Overview

Description:	Anti-PLK1 (CHICKEN) Antibody - 200-901-MH7S
Item No.:	200-901-MH7S
Size:	25 µL
Applications:	IF, WB
Reactivity:	Human
Host Species:	Chicken

Product Details

Background:	Polo-like kinases (PLKs) are a family of four serine/threonine protein kinases that belongs to the CDC5/Polo subfamily and are critical regulators of cell cycle progression, mitosis, cytokinesis, elevated levels are found in many different types of cancer, and the DNA damage response. Depletion of this protein in cancer cells dramatically inhibited cell proliferation and induced apoptosis; hence, it is a target for cancer therapy. PLK-1, -2 and -3 are ubiquitously expressed, whereas PLK-4 is restricted to a few tissues. Diseases associated with PLK1 include Breast Cancer, Transient Tic Disorder, and Monoclonal Paraproteinemia. Anti-PLK1 Antibody is useful for researchers interested in Cancer Researcher, Cell Cycle Research, and Kinase Activity Research.
Synonyms:	Chicken Anti-Polo Like Kinase 1 Antibody, Chicken Anti-PLK1 Antibody, Chicken PLK-1 Antibody, Serine/Threonine-Protein Kinase 13, Polo-Like Kinase 1, STPK13, PLK-1, PLK, Serine/Threonine-Protein Kinase PLK1, Cell Cycle Regulated Protein Kinase, Polo-Like Kinase (Drosophila), Polo (Drosophila)-Like Kinase, EC 2.7.11.21
Host Species:	Chicken
Clonality:	Polyclonal
Format:	IgY

Target Details

Gene Name:	PLK1
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-PLK1 antibody was prepared from eggs of chickens laid after repeated immunizations with a synthetic peptide corresponding to an internal portion of human PLK1 conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This product is an IgY fraction antibody purified from monospecific chicken egg yolks by a multi-step process which includes selective precipitation and salt fractionation followed by extensive dialysis against the buffer stated above. Reactivity occurs against human PLK1. A BLAST analysis was used to suggest cross reactivity with PLK1 protein from rat, mouse, and bovine sources based on 100% homology with the immunizing sequence.
Relevant Links:	• UniProtKB - P53350 • NCBI - NP_005021.2 • GeneID - 5347

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-PLK1 antibody has been tested in Western Blot and Immunofluorescence. Expect a band ~68.3kDa in appropriate cell lysates or tissues. Positive controls used are HEK293T or K-562 whole cell lysate in WB, and HeLa cells in IF. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IF:	5 µg/ml
WB:	1:500

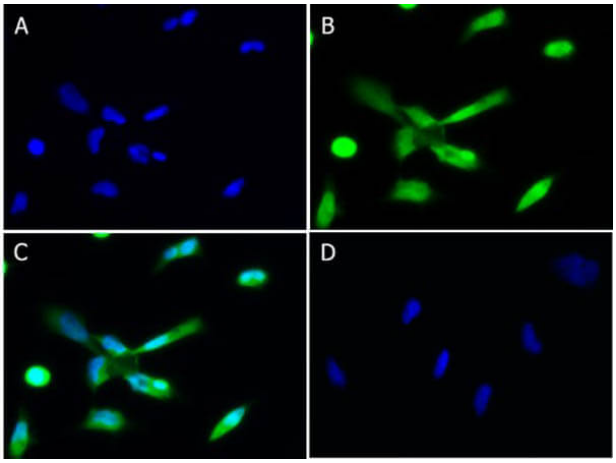
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.05 mg/ml by UV absorbance at 280 nm
Buffer:	0.002 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.0
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

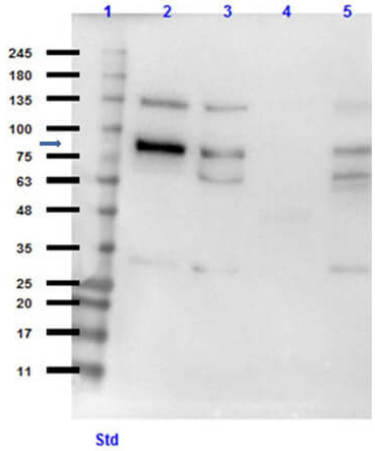
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence of Chicken Anti-PLK1 Antibody. Cell Line: HeLa. Fixative: 4% PFA. Permeabilization: 0.3% Triton X-100. Antibody: Chicken Anti-PLK1 at 5µg/mL overnight at 2-8°C. Counterstain Antibody: Donkey Anti-Chicken IgG DyLight™ 488 (p/n 603-141-126) at 5µg/mL for 1hr at RT. Nuclear counterstain: DAPI. Localization: Intercellular. Image: (A) DAPI Only, (B) PLK1+Secondary, (C) Merge A+B, (D) Secondary only.



Western Blot
Western Blot of Chicken Anti-PLK1 Antibody. Lane 1: Opal PreStained Molecular Weight (p/n MB-201-0500). Lane 2: PLK1 Overexpressing Lysate (10µg). Lane 3: HEK293T Lysate (p/n W09-000-365). Lane 4: Human Testis Lysate. Lane 5: K-562 Lysate (p/n W09-001-GJ7). Load 35µg per lysate. Blocking Buffer: 5% Blotto (p/n B501-0500) in TBST. Primary Antibody: Anti-PLK1 at 1:500 overnight at 2-8°C. Secondary Antibody: Goat Anti-Chicken HRP Antibody (p/n 603-103-126) at 1:40000 for 60min at RT. Predicted MW: ~68kDa. Observed MW: ~135, ~80kDa arrow. In some lysates ~63kDa band is present.

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