
Product Name: PLK1 Mouse Monoclonal Antibody**Catalog #: AMM81159**

For research use only.

Summary

Description	Mouse monoclonal Antibody
Host	Mouse
Application	ICC,ELISA
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Monoclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Purified antibody in PBS with 0.05% sodium azide
Purification	Affinity Purification

Application

Dilution Ratio	ICC 1:20-1:50,ELISA 1:5000-1:20000
Molecular Weight	68kDa

Antigen Information

Gene Name	PLK1
Alternative Names	PLK; STPK13
Gene ID	5347.0
SwissProt ID	P53350
Immunogen	Purified recombinant fragment of human PLK1 (AA: 331-508) expressed in E. Coli.

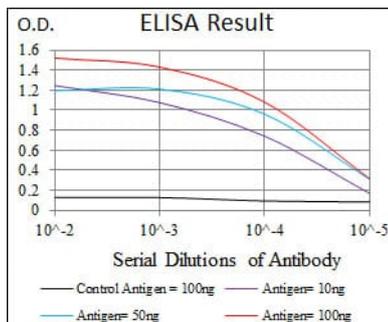
Background

PLK1 is critical for the initiation of centrosome maturation. Polo-like kinases (PLKs) are a family of four serine/threonine protein kinases that are critical regulators of cell cycle progression, mitosis, cytokinesis, and the DNA damage response. PLK1, -2 and -3 are ubiquitously expressed, whereas PLK4 is restricted to a few tissues including the testes and the thymus. The mRNA and

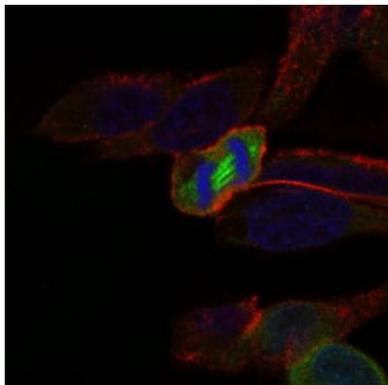
protein expression of PLK1, -2 and -4 are coordinately regulated during cell cycle progression, but PLK3 levels are independent of the other three family members. Furthermore, PLK3 is a much more stable protein than PLK1, -2 or -4. PLK1 is the most well characterized member of this family and strongly promotes the progression of cells through mitosis. During the various stages of mitosis PLK1 localizes to the centrosomes, kinetochores and central spindle. PLKs are dysregulated in a variety of human cancers. PLK1 overexpression correlates with cellular proliferation and poor prognosis. PLK2 and PLK3 are involved in checkpoint-mediated cell cycle arrest to ensure genetic stability. Loss-of-function mutations in these enzymes can lead to oncogenic transformation.

Research Area

Image Data



Black line: Control Antigen (100 ng); Purple line: Antigen(10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng);



Immunofluorescence analysis of HeLa cells using PLK1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.