

## PLK1 Monoclonal Antibody

### Description

Product type	Antibody
Code	BT-MCA2534
Host	Mouse
Isotype	Mouse IgG1
Size	100µL, 50µL
Immunogen	Purified recombinant fragment of human PLK1 (AA: 331-508) expressed in E. Coli.
Mol wt	68kDa
Species reactivity	Human
Clonality	Monoclonal
Recommended application	ICC
Concentration	N/A
Full name	N/A
Synonyms	PLK;STPK13

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

### 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.

### Recommended Dilution

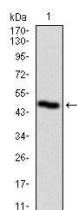
WB: 1:500 - 1:2000

ICC: 1:50

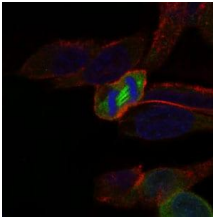
ELISA: 1:10000

Not yet tested in other applications.

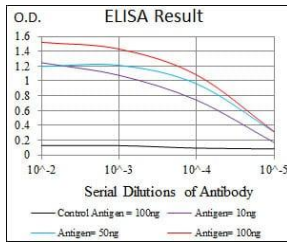
### Images



Western blot analysis using PLK1 mAb against human PLK1 recombinant protein. (Expected MW is 45.7 kDa)



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.



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

### Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

501 Changsheng S Rd, Nanhu Dist, Jiaxing, Zhejiang, China

Tel: 86 21 31007137 | E-mail: [save@bt-laboratory.com](mailto:save@bt-laboratory.com) | [www.bt-laboratory.com](http://www.bt-laboratory.com)