

## **Product datasheet for TA336437**

#### OriGene Technologies, Inc.

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### **PLK1 Rabbit Polyclonal Antibody**

#### **Product data:**

**Product Type:** Primary Antibodies

Applications: ICC/IF, IHC, WB

Recommended Dilution: Immunohistochemistry, Western Blot: 1:1000-1:2000, Immunohistochemistry-Paraffin,

Immunocytochemistry/ Immunofluorescence

**Reactivity:** Human, Mouse, Rat, Bovine, Canine, Porcine, Primate

**Host:** Rabbit

Clonality: Polyclonal

**Immunogen:** A portion of amino acids 100-200 of human PLK1 was used as the immunogen.

**Formulation:** Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

**Concentration:** lot specific

Purification: Whole antisera
Conjugation: Unconjugated

**Storage:** Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

**Gene Name:** polo like kinase 1

Database Link: NP 005021

Entrez Gene 18817 MouseEntrez Gene 25515 RatEntrez Gene 5347 Human

P53350

**Background:** Polo related kinase (PLK), a serine/threonine kinase is strongly correlated with the mitotic

activity of cells. PLK is present in all tissues during mouse embryonic development, where as in adults expresion is limited to thymus and ovaries. It has been observed that tumors of various origin (lung, colon, stomach, smooth muscle, and esophagus as well as non-Hodgkin lymphomas) express high levels of PLK transcripts with absent of transcripts in normal surrounding tissues. Only normal colon and placenta, which are known to be mitotically active express PLK. PLK expression is restricted to proliferating cells. In mammalian cells, three PLKs (PLK1, PLK2/Snk, PLK3/Fnk) have been identified. PLK1 is the most studied isoform. The known substrates of PLK1 include several proteins involved in mitosis such as Cdc25C, APC, and cyclin B. PLK1 promotes mitosis through the phosphorylation and activation of

Cdc25C, which regulates the tyrosine dephosphorylation of CDKs.

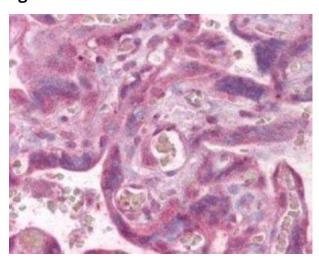


**Synonyms:** PLK; STPK13

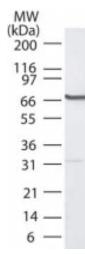
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Cell cycle, Oocyte meiosis, Progesterone-mediated oocyte maturation

# **Product images:**



Immunohistochemistry-Paraffin: PLK1 Antibody TA336437 - Analysis of human placenta using PLK1 antibody at 1:100.



Western Blot: PLK1 Antibody TA336437 - Analysis of HCT-116 lysate using PLK1 antibody at 1:2000.