

PLK1

CONTACT INFORMATION:	Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas
STATUS:	Validated
TYPE:	Rat monoclonal
CLONE NAME:	POE125A
PROTEIN:	Serine/threonine-protein kinase PLK1
PROTEIN WEB:	https://www.uniprot.org/uniprot/Q07832
ANTIGEN USED:	HIS-hPlk1 full-length protein
FUSION PARTNER:	NS1/Ag4-1 (NS1) cells
ISOTYPE:	Unknown
SPECIES REACTIVITY:	human and mouse
PREPARATION AND STORAGE:	Aliquot and store at 4C. Do not freeze

DESCRIPTION

Serine/threonine-protein kinase that performs several important functions throughout M phase of the cell cycle, including the regulation of centrosome maturation and spindle assembly, the removal of cohesins from chromosome arms, the inactivation of anaphase-promoting complex/cyclosome (APC/C) inhibitors, and the regulation of mitotic exit and cytokinesis. Polo-like kinase proteins acts by binding and phosphorylating proteins that are already phosphorylated on a specific motif recognized by the POLO box domains.

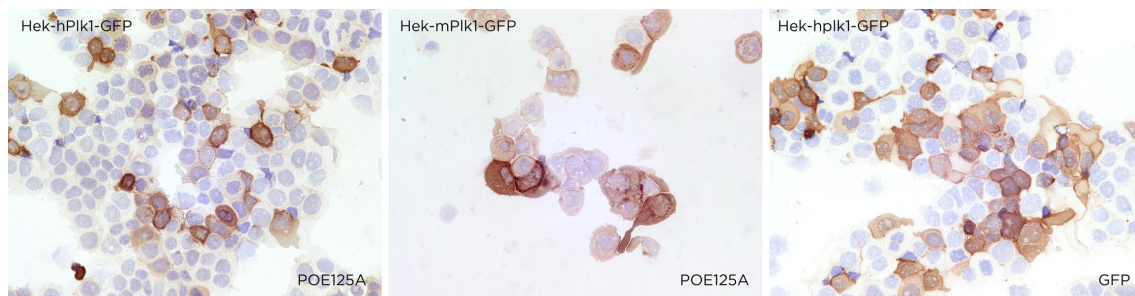
REFERENCES

Wachowicz P, Fernández-Miranda G, Marugán C, Escobar B, de Cárcer G. Genetic depletion of Polo-like kinase 1 leads to embryonic lethality due to mitotic aberrancies. *Bioessays*. 2016 Jul;38 Suppl 1:S96-S106. doi: 10.1002/bies.201670908. PubMed PMID: 27417127.

Trakala M, Partida D, Salazar-Roa M, Maroto M, Wachowicz P, de Cárcer G, Malumbres M. Activation of the endomitotic spindle assembly checkpoint and thrombocytopenia in Plk1-deficient mice. *Blood*. 2015 Oct 1;126(14):1707-14. doi: 10.1182/blood-2015-03-634402. PubMed PMID: 26185128.

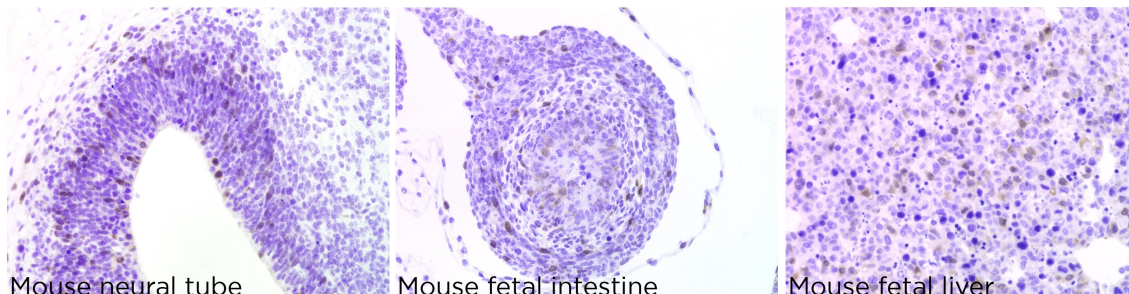
APPLICATIONS

IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
Frozen tissue and cytopins									
Recommended	POE1 25A	Neat	supernatant						
Paraffin tissue									
Recommended	POE1 25A	Neat	supernatant		Ventana				
Immunofluorescence									



POE125A is able to detect human and mouse Plk1 protein in immunocytochemistry

To confirm that POE125A mAb recognizes human and mouse PLK1 protein, immunocytochemistry on frozen cytopsin preparations of GFP-tagged hPLK1 and mPLK1 expressed in HEK293T cell line was performed.



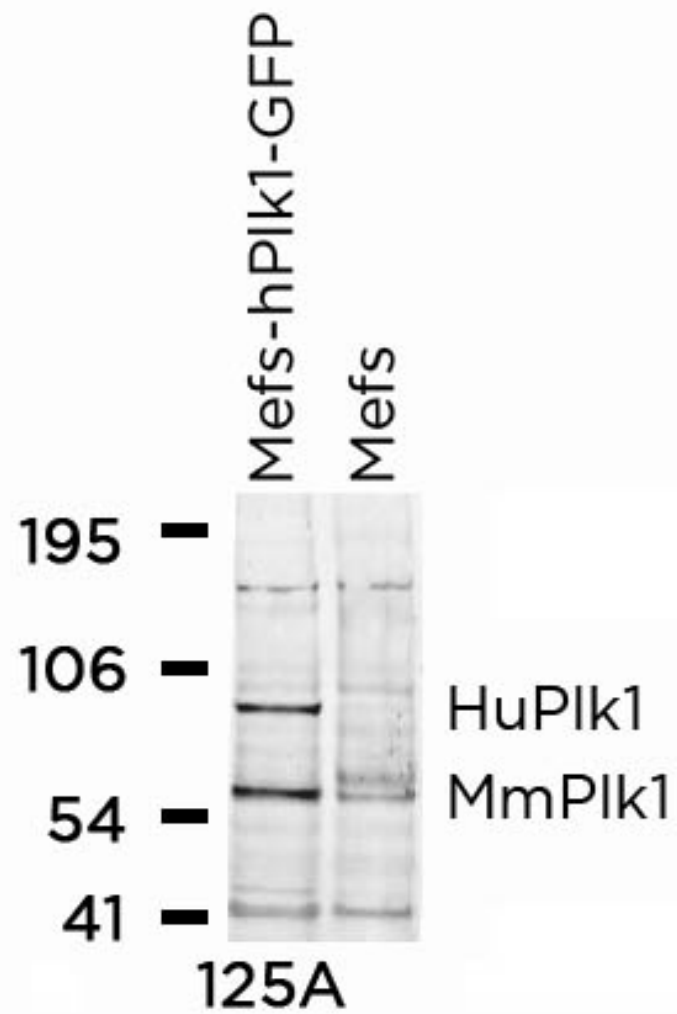
Mouse neural tube

Mouse fetal intestine

Mouse fetal liver

POE125A mAb can be used to detect PLK1 protein in mouse paraffin tissues

WB Techniques	Clone	Dilution	Antibody concentration	Positive control	Negative control	Expected MW	Observed Mw	Positivity in other species
Western Blotting								
Recommended	POE125 A	Neat	supernatant			67kDa	67kDa	
Immunoprecipitation								



POE125A mAb is able to detect mouse and human Plk1 protein by WB.

LANES

Lane 1 Mefs-hPlk1-GFP (100ug) (+)

Lane 2 Mefs (100ug) (+)

mPlk1 endogenous expression in both lanes