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Product datasheet for TA319502

CENPU Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1:5,000 - 1:25,000, WB: 1:500 - 1:2,000, IHC: 20 ug/ml
Reactivity:	Human, Dog, Bovine, Chimpanzee
Modifications:	Phospho-specific
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids surrounding Thr78 of human MLF1IP protein. The immunogen peptide is phosphorylated at Thr78.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	centromere protein U
Database Link:	NP_078905 Entrez Gene 607799 DogEntrez Gene 79682 Human Q71F23
Synonyms:	CENP50; CENPU50; KLIP1; MLF1IP; PBIP1

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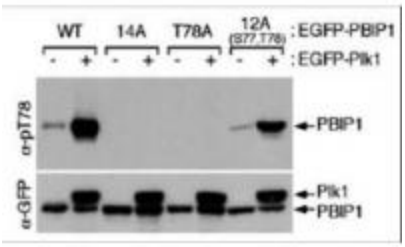
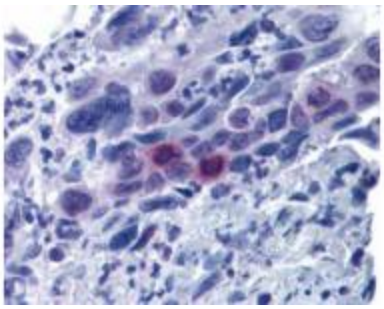
Note: This antibody is suitable for Cancer, Immunology and Nuclear Signaling research. Myeloid leukemia factor-1 (MLF1) Interacting Protein (also known as PBIP1, MLF1IP1, KLIP1 or KSHV latent nuclear antigen interacting protein 1) is a novel polo-like kinase 1 (Plk1) substrate. Plk1 phosphorylation of MLF1IP induces ubiquitination and degradation of MLF1IP prior to the metaphase/ anaphase transition. Several Plk1-dependent phosphorylation sites have been identified on MLF1IP by mass spectrometry. Mutations of these sites stabilize MLF1IP and inhibit mitotic progression. Subsequent in vitro and in vivo MLF1IP phosphorylation and stability assays have revealed that phosphorylation of Thr78 is critical for triggering Plk1-dependent MLF1IP degradation. Expression of a non-degradable Thr78Ala mutant was sufficient to induce a mitotic block. Timely phosphorylation of MLF1IP on Thr78 by Plk1 is critical for eliminating the MLF1IP-imposed mitotic block prior to anaphase onset. MLF1IP is speculated to be a novel tumor suppressor

Protein Families: Druggable Genome

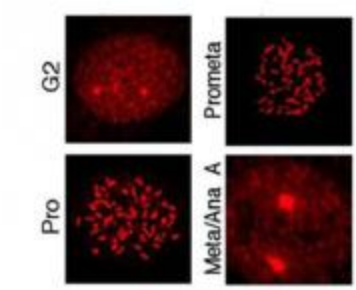
Product images:



Western blot using affinity purified anti-MLF1IP pT78 antibody shows detection of MLF1IP phosphorylated at Thr78. HeLa cells were co-infected with the indicated adenoviruses expressing GFP-tagged Plk1 or PBIP1. Blots were probed with the anti-MLF1IP pT78 antibody, stripped, and then reprobed with anti-GFP antibody (Kang & Park, et al., 2006).



Anti-MLF1IP pT78 antibody was used at 20 ?g/ml to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides. This image shows moderately positive staining of mitotic cells in colon adenocarcinoma at 60X. Tissue was formalin-fixed and paraffin embedded. The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal Communi-cation, Tina Roush, LifeSpanBiosciences, Seattle, WA.



Immunostaining using affinity purified anti-MLF1IP pT78 antibody shows detection of MLF1IP pT78 at the kinetochores of HeLa cells in different phases of the cell cycle. Fluorescent signals were detectable at the kinetochores as early as G2, became most abundant in prophase cells with a discernible nuclear envelope, and gradually diminished as cells proceeded through mitosis (Kang & Park, et al., 2006).