



Datasheet for ABIN968307

anti-Thymopoietin antibody (AA 34-156)

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Overview

Quantity:	50 µg
Target:	Thymopoietin (TMPO)
Binding Specificity:	AA 34-156
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Thymopoietin antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Rat LAP2 aa. 34-156
Clone:	27-LAP2
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Human, Dog (Canine)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target: Thymopoietin (TMPO)

Alternative Name: LAP2 ([TMPO Products](#))

Background: A specialized extension of the ER, the nuclear envelope (NE) forms the nuclear compartment boundary in eukaryotic cells. It contains numerous pore complexes and the nucleoplasmic side is linked to nuclear lamina. The nuclear lamina composes the structural framework for the NE and serves as a chromatin anchor site, thus, playing a major role in interphase nuclear organization. Many proteins are associated with lamina, particularly the LAPs (Lamina-Associated Polypeptides). LAP2 (also known as LAP2beta) is a hydrophilic protein with a single transmembrane segment near the C-terminus. Thus, it has been defined as a type II integral membrane protein with the majority of its structure exposed to the nucleoplasm. LAP2 binding to lamins contributes to the attachment of the nuclear lamina to the inner nuclear membrane. LAP2 also binds to chromatin, implying its role in chromosomal organization during mitosis. Mitotic phosphorylation of LAP2 regulates its binding to lamins and chromosomes during the disassembly and reassembly of mitosis. Thus, LAP2 is a nuclear protein that plays a role in the organization of the NE during cell cycle progression.

Synonyms: LAP2beta, Lamina-Associated Polypeptides

Molecular Weight: 53 kDa

Application Details

Comment: Related Products: [ABIN967389](#)

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 250 µg/mL

Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

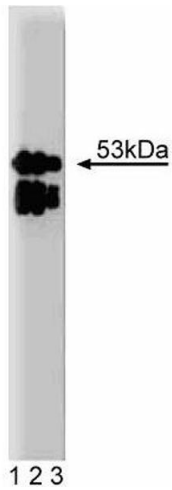
Handling

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

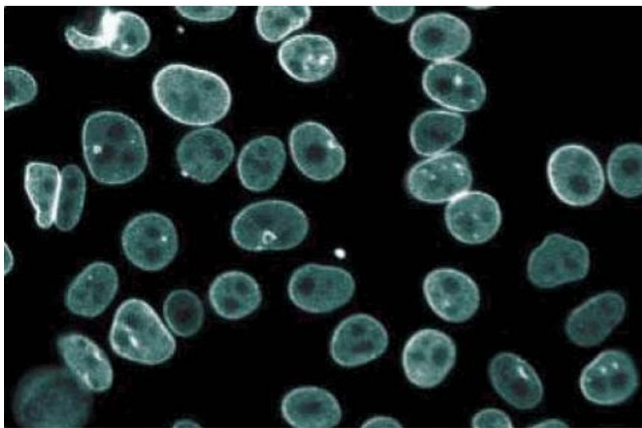
Publications

- Product cited in:
- Kimura, Ito, Watanabe, Takahashi, Ikawa, Yomogida, Fujita, Ikeuchi, Asada, Matsumiya, Okuyama, Okabe, Toshimori, Nakano: "Mouse germ cell-less as an essential component for nuclear integrity." in: **Molecular and cellular biology**, Vol. 23, Issue 4, pp. 1304-15, (2003) ([PubMed](#)).
- Rusan, Tulu, Fagerstrom, Wadsworth: "Reorganization of the microtubule array in prophase/prometaphase requires cytoplasmic dynein-dependent microtubule transport." in: **The Journal of cell biology**, Vol. 158, Issue 6, pp. 997-1003, (2002) ([PubMed](#)).
- Dechat, Gotzmann, Stockinger, Harris, Talle, Siekierka, Foisner: "Detergent-salt resistance of LAP2alpha in interphase nuclei and phosphorylation-dependent association with chromosomes early in nuclear assembly implies functions in nuclear structure dynamics." in: **The EMBO journal**, Vol. 17, Issue 16, pp. 4887-902, (1998) ([PubMed](#)).
- Furukawa, Fritze, Gerace: "The major nuclear envelope targeting domain of LAP2 coincides with its lamin binding region but is distinct from its chromatin interaction domain." in: **The Journal of biological chemistry**, Vol. 273, Issue 7, pp. 4213-9, (1998) ([PubMed](#)).
- Furukawa, Panté, Aebi, Gerace: "Cloning of a cDNA for lamina-associated polypeptide 2 (LAP2) and identification of regions that specify targeting to the nuclear envelope." in: **The EMBO journal**, Vol. 14, Issue 8, pp. 1626-36, (1995) ([PubMed](#)).



Western Blotting

Image 1. Western blot analysis of LAP2 on a RSV-3T3 cell lysate. Lane 1: 1:5000, lane 2: 1:10,000, lane 3: 1:20,000 dilution of the mouse anti-LAP2 antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma, ATCC CCL-2.2).

Image 3.

