



Mouse Anti-TMPO monoclonal antibody, clone 9D20-2I22 (CABT-RM139)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Specifically detects Lamina-associated polypeptide 2 alpha (LAP2alpha) in murine species. It targets an epitope in the internal region.
Target	TMPO
Immunogen	His-tagged recombinant fragment corresponding to 507 amino acids from the C-terminal region.
Isotype	IgG2a, K
Source/Host	Mouse
Species Reactivity	Mouse
Clone	9D20-2I22
Purification	Protein G purified
Conjugate	unconjugated
Applications	IF, IP, ChIP, WB
Epitope	cytoplasmic domain
Molecular Weight	~75 kDa observed; 75.17 kDa calculated. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl

Preservative	0.05% sodium azide
Storage	Stable for 1 year at 2-8°C from date of receipt.

BACKGROUND

Introduction	Lamina-associated polypeptide 2, isoforms alpha is encoded by the <i>Tmopo</i> gene in murine species. LAP2alpha is a non-membrane bound, oligomeric nucleoplasmic protein that associates directly or indirectly with lamins at specific cell-cycle stages. It is expressed diffusely throughout the nucleus and is involved in the structural organization of the nucleus and in the post-mitotic nuclear assembly. It is shown to interact with A-type lamins to control gene expression, transcription, and chromatin organization. The N-terminal part of LAP2alpha contains two structurally independent, non-interacting domains: LEM (LAPEmerin-MAN1)-like domain that binds DNA and a LEM domain that interacts with BANF1. Its C-terminal domain forms a four-stranded coiled coil. Lamin A/C and LAP2alpha complexes predominantly co-occur in euchromatic genomic regions and are shown to be highly mobile. They can bind chromatin in a dynamic manner and are involved in establishing a chromatin environment that is permissive for epigenetic regulation. Loss of LAP2alpha has been linked to increased proliferation of tissue progenitor cells in epidermis, colon, and the hematopoietic system and delayed skeletal muscle differentiation.
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Keywords	TMPO; thymopoietin; TP; LAP2; CMD1T; LEMD4; PRO0868; TP alpha; TP beta/gamma; LEM domain containing 4; lamina-associated polypeptide 2; thymopoietin-related peptide isoform alpha; thymopoietin-related peptide isoforms beta/gamma
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GENE INFORMATION

Entrez Gene ID	21917
UniProt ID	Q61033
