

CENPO Antibody

Catalog # ASC10992

Product Information

Application	WB, E
Primary Accession	Q9BU64
Other Accession	NP_077298 , 13236565
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	33786
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CENPO antibody can be used for detection of CENPO by Western blot at 1 - 2 μ g/mL.

Additional Information

Gene ID	79172
Other Names	Centromere protein O, CENP-O, Interphase centromere complex protein 36, CENPO, ICEN36, MCM21R
Target/Specificity	CENPO;
Reconstitution & Storage	CENPO antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CENPO Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CENPO
Synonyms	ICEN36, MCM21R
Function	Component of the CENPA-CAD (nucleosome distal) complex, a complex recruited to centromeres which is involved in assembly of kinetochore proteins, mitotic progression and chromosome segregation. May be involved in incorporation of newly synthesized CENPA into centromeres via its interaction with the CENPA-NAC complex. Modulates the kinetochore-bound levels of NDC80 complex.
Cellular Location	Nucleus. Chromosome, centromere. Chromosome, centromere, kinetochore.

Note=The CENPA-CAD complex is probably recruited on centromeres by the CENPA-NAC complex

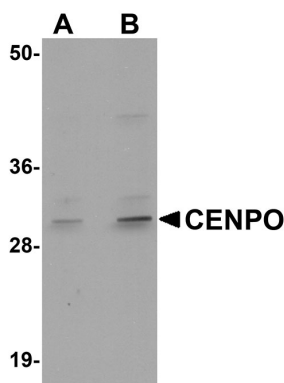
Background

CENPO Antibody: Accurate chromosome segregation during mitosis requires a kinetochore to assemble correctly at the centromere of each chromatid and form a dynamic interface with the microtubules of the mitotic spindle. The kinetochore assembly includes the multisubunit CENP-H/I complex which can be divided into three functional classes based on phenotype analysis. One of these classes is referred to as the CENP-O class of proteins of which CENPO is the exemplar. These proteins form a stable complex with each other and are required for proper kinetochore function and for recovery from mitotic spindle damage. CENPO has also been shown to be an auto-antigen in a small population of anti-centromere antibodies- (ACA-) positive patients with scleroderma.

References

Fukagawa T. Assembly of kinetochore in vertebrate cells. *Exp. Cell Res.*2004; 296:21-7.
Okada M, Cheeseman IM, Hori T, et al. The CENP-H-I complex is required for the efficient incorporation of newly synthesized CENP-A into centromeres. *Nat. Cell Biol.*2006; 8:446-57.
Hori T, Okada M, Maenaka K, et al. CENP-O class proteins form a stable complex and are required for proper kinetochore function. *Mol. Biol. Cell*2008; 19:843-54.
Saito A, Muro Y, Sugiura K, et al. CENP-O, a protein localized at the centromere throughout the cell cycle, is a novel target antigen in systemic sclerosis. *J. Rheumatol.*2009; 36:781-6.

Images



Western blot analysis of CENPO in mouse kidney tissue lysate with CENPO antibody at (A) 1 and (B) 2 μ g/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.