CENP-E Antibody

Cat. No. CY1127

Applications:	**WB**
Detected MW:	**312 kDa**
Species & Reactivity:	**Human**
Isotype:	**Rabbit IgG**

BACKGROUND

Centromere-associated protein E (CENP-E) is a protein that in human is encoded by the *CENP-E* gene.[1] It is a kinesin-like motor protein that accumulates in the G2 phase of the cell cycle, first appearing at the centromere region of chromosomes during prometaphase, and is rapidly degraded upon completion of mitosis.

Molecular characterization of the CENP-E molecule shows it to have a tri-partite structure comprised of amino and carboxy-terminal globular domains separated by a ~1,500 residue α-helical domain predicted to form coiled-coils. The amino-terminal domain contains striking homology to the microtubule-dependent motor protein kinesin, thus demonstrating CENP-E to be a member of the growing family of kinesin-like proteins.[2]

CENP-E was reported to be associated with a minus end microtubule motor activity and provide functions that are critical for normal chromosome motility during mitosis. In vitro studies showed that it is responsible for microtubule depolymerization-dependent movement of chromosomes.[3] Instead of utilizing ATP, chromosome movement in this in vitro system relies simply on the ability of the kinetochore to remain attached to the shrinking end of a single microtubule induced to depolymerize by the dilution of free tubulin subunits. CENP-E was also found to regulate recycling of the plasma membrane by acting as a link between recycling vesicles and the microtubule network through its association with STX4 and SNAP25. Recent studies showed that CENP-E has a potential role regulating skeletal myogenesis and in cell differentiation in embryogenesis.

References:
1. Testa, J. R. et al: Genomics. 23(3):691-3, 1995.
2. Goldstein, L. S. B. Annu. Rev. Genetics. 27:319-351, 1993.
3. Lombillo, V. A. et al: J. Cell Biol. 128:107-115, 1995.

TECHNICAL INFORMATION

Source: CENP-E Antibody is a rabbit antibody raised against a short peptide from human CENP-E sequence.

Specificity and Sensitivity: This antibody detects endogenous CENP-E proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 50% glycerol

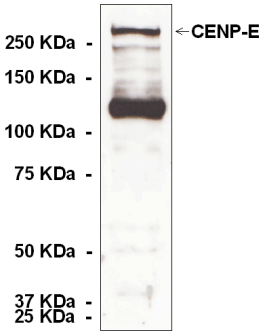
Storage: Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:500-1000
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Western Blot detecting of CENP-E proteins in HDLMVEC cell lysate using CENP-E Antibody.