abcam

Product datasheet

Anti-CENPE antibody [EPR4543(2)] ab124733

KO VALIDATED Recombinant RabMAb

1 Abreviews 4 References 3 Images

Overview

Product name	Anti-CENPE antibody [EPR4543(2)]
Description	Rabbit monoclonal [EPR4543(2)] to CENPE
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human CENPE aa 2500-2600. The exact sequence is proprietary.
Positive control	HepG2, HeLa, and Jurkat cell lysates.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR4543(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124733 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

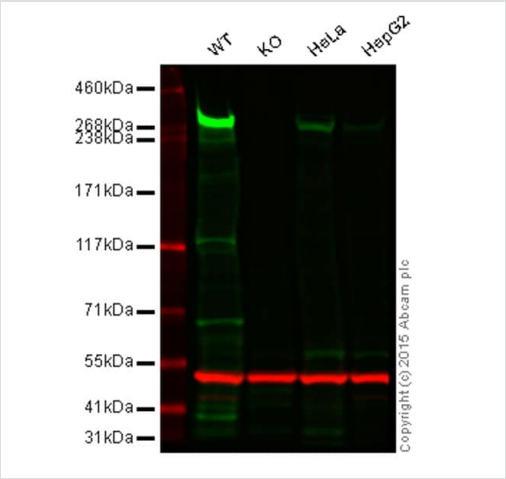
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 320 kDa (predicted molecular weight: 316 kDa).

Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

Target

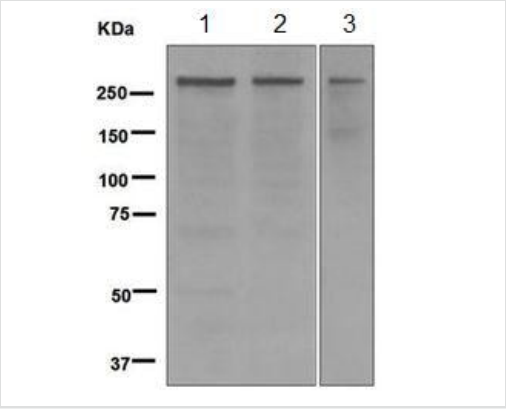
Function	Essential for the maintenance of chromosomal stability through efficient stabilization of microtubule capture at kinetochores. Plays a key role in the movement of chromosomes toward the metaphase plate during mitosis. Is a slow plus end-directed motor whose activity is essential for metaphase chromosome alignment. Couples chromosome position to microtubule depolymerizing activity. The highly processive microtubule-dependent motor activity of CENPE serves to power chromosome congression and provides a flexible, motile tether linking kinetochores to dynamic spindle microtubules. Necessary for the mitotic checkpoint signal at individual kinetochores to prevent aneuploidy due to single chromosome loss. Required for the efficient recruitment of BUBR1, MAD1 and MAD2 to attached and newly unattached kinetochores. Stimulates mammalian BUBR1 kinase activity. Accumulates just before mitosis at the G2 phase of the cell cycle.
Involvement in disease	Microcephaly 13, primary, autosomal recessive
Sequence similarities	Belongs to the TRAFAC class myosin-kinesin ATPase superfamily. Kinesin family. Contains 1 kinesin motor domain.
Domain	The protein is composed of a N-terminal kinesin-motor domain involved in the chromosome movements, a long coil-coiled region involved in the homodimerization and an inhibitory C-tail involved in autoinhibition of the N-terminal catalytic part.
Post-translational modifications	The C-terminal inhibitory domain is phosphorylated. Phosphorylation relieves autoinhibition of the kinetochore motor. Sumoylated with SUMO2 and SUMO3. The sumoylation mediates the association to the kinetochore.
Cellular localization	Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle. Associates with kinetochores during congression (as early as prometaphase), relocates to the spindle midzone at anaphase, and is quantitatively discarded at the end of the cell division.

Images



Western blot - Anti-CENPE antibody [EPR4543(2)] (ab124733)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: CENPE knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: HepG2 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab124733 observed at 310 kDa. Red - loading control, **ab8245**, observed at 37 kDa.
ab124733 was shown to specifically react with CENPE when CENPE knockout samples were used. Wild-type and CENPE knockout samples were subjected to SDS-PAGE. ab124733 and **ab8245** (loading control to GAPDH) were diluted 1/1000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-CENPE antibody [EPR4543(2)] (ab124733)

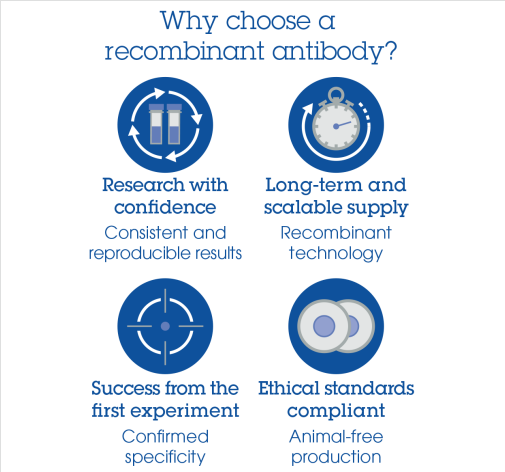
All lanes : Anti-CENPE antibody [EPR4543(2)] (ab124733) at 1/1000 dilution

Lane 1 : HepG2 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat anti-Rabbit HRP at 1/2000 dilution

Predicted band size: 316 kDa



Anti-CENPE antibody [EPR4543(2)] (ab124733)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors