# abcam

## Product datasheet

## Anti-CENPE antibody [EPR4542(2)] ab133583



ייבעדער RabMAb

★★★★★ 1 Abreviews 9 References 画像数4

#### 製品の概要

製品名 Anti-CENPE antibody [EPR4542(2)]

製品の詳細 Rabbit monoclonal [EPR4542(2)] to CENPE

由来種 Rabbit

アプリケーション **適用あり:** WB

適用なし: Flow Cyt,IHC-P or IP

種交差性 交差種: Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール HeLa treated with aphidicolin and Nocodazole, HepG2 and Jurkat cell lysates

特記事項 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**.

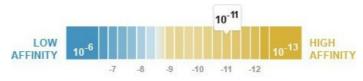
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

## 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

 $K_D = 3.30 \times 10^{-11} M$ 解離定数(KD値)



Learn more about K<sub>D</sub>

**バッファー** pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA

精製度 Protein A purified

**ポリ/モノ** モノクローナル **ウローン名** EPR4542(2)

アイソタイプ IgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab133583の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000 - 1/10000. Predicted molecular weight: 312 kDa.

追加情報 Is unsuitable for Flow Cyt,IHC-P or IP.

## ターゲット情報

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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.

関連疾患

Microcephaly 13, primary, autosomal recessive

配列類似性

Belongs to the TRAFAC class myosin-kinesin ATPase superfamily. Kinesin family.

Contains 1 kinesin motor domain.

ドメイン

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.

翻訳後修飾

The C-terminal inhibitory domain is phosphorylated. Phosphorylation relieves autoinhibition of the

kinetochore motor.

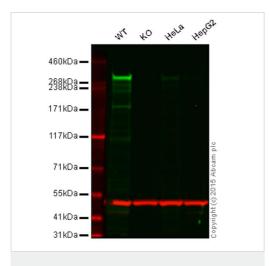
Sumoylated with SUMO2 and SUMO3. The sumoylation mediates the association to the

kinetochore.

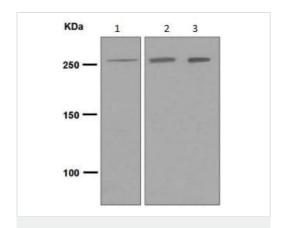
細胞内局在

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.



Western blot - Anti-CENPE antibody [EPR4542(2)] (ab133583)



Western blot - Anti-CENPE antibody [EPR4542(2)] (ab133583)

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 - ab133583 observed at 310 kDa. Red - loading control, <u>ab8245</u>, observed at 37 kDa.

ab133583 was shown to specifically react with CENPE when CENPE knockout samples were used. Wild-type and CENPE knockout samples were subjected to SDS-PAGE. ab133583 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 lgG H&L (IRDye® 800CW) preadsorbed ab216773 and Goat anti-Mouse lgG H&L (IRDye® 680RD) preadsorbed ab216776 secondary antibodies at 1/10000 dilution for 1 h at room temperature before imaging.

**All lanes :** Anti-CENPE antibody [EPR4542(2)] (ab133583) at 1/1000 dilution

Lane 1: HeLa treated with aphidicolin and Nocodazole cell lysate

Lane 2 : HepG2 cell lysate

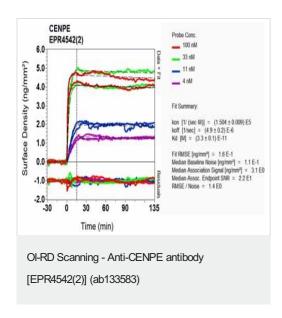
Lane 3: Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

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

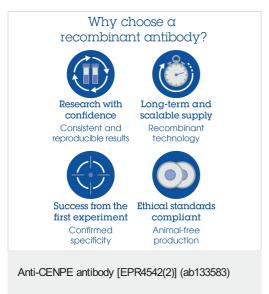
Predicted band size: 312 kDa



Equilibrium disassociation constant ( $K_D$ )

Learn more about K<sub>D</sub>

## Click here to learn more about K<sub>D</sub>



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