

Centromere protein E Antibody (C-Term)
Peptide-affinity purified goat antibody
Catalog # AF2278a**Specification**

Centromere protein E Antibody (C-Term) - Product Information

Application	E
Primary Accession	Q02224
Other Accession	NP_001804.2 , 1062
Predicted	Human, Rat, Dog, Cow
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	316415

Centromere protein E Antibody (C-Term) - Additional Information**Gene ID** 1062**Other Names**

Centromere-associated protein E, Centromere protein E, CENP-E, Kinesin-related protein CENPE, CENPE

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Centromere protein E Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Centromere protein E Antibody (C-Term) - Protein Information**Name** CENPE**Function**

Microtubule plus-end-directed kinetochore motor which plays an important role in chromosome congression, microtubule-kinetochore conjugation and spindle assembly checkpoint activation. Drives chromosome congression (alignment of chromosomes at the spindle equator resulting in the formation of the metaphase plate) by mediating the lateral sliding of polar chromosomes along spindle microtubules towards the spindle equator and by aiding the establishment and maintenance of connections between kinetochores and spindle microtubules (PubMed:7889940, PubMed:7889940).

href="http://www.uniprot.org/citations/23891108" target="_blank">23891108, PubMed:25395579). The transport of pole-proximal chromosomes towards the spindle equator is favored by microtubule tracks that are deetyrosinated (PubMed:25908662). Acts as a processive bi-directional tracker of dynamic microtubule tips; after chromosomes have congressed, continues to play an active role at kinetochores, enhancing their links with dynamic microtubule ends (PubMed:23955301). Suppresses chromosome congression in NDC80-depleted cells and contributes positively to congression only when microtubules are stabilized (PubMed:25743205). Plays an important role in the formation of stable attachments between kinetochores and spindle microtubules (PubMed:17535814) The stabilization of kinetochore- microtubule attachment also requires CENPE-dependent localization of other proteins to the kinetochore including BUB1B, MAD1 and MAD2. Plays a role in spindle assembly checkpoint activation (SAC) via its interaction with BUB1B resulting in the activation of its kinase activity, which is important for activating SAC. Necessary for the mitotic checkpoint signal at individual kinetochores to prevent aneuploidy due to single chromosome loss (By similarity).

Cellular Location

Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle. Chromosome, centromere. Note=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 (By similarity). Recruited to the kinetochore in a SEPT7, CENPQ and TRAPPC12-dependent manner (PubMed:18460473, PubMed:25918224, PubMed:25395579). Recruited to the pericentromeric/centromeric regions of the chromosome in a CTCF- dependent manner (PubMed:26321640). {ECO:0000250|UniProtKB:Q6RT24, ECO:0000269|PubMed:18460473, ECO:0000269|PubMed:25395579, ECO:0000269|PubMed:25918224, ECO:0000269|PubMed:26321640}

Centromere protein E Antibody (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Centromere protein E Antibody (C-Term) - Images

Centromere protein E Antibody (C-Term) - References

CENP-E, a novel human centromere-associated protein required for progression from metaphase to anaphase. Yen TJ, Compton DA, Wise D, Zinkowski RP, Brinkley BR, Earnshaw WC, Cleveland DW. EMBO J. 1991 May;10(5):1245-54. PMID: 2022189