

Product datasheet for MC225329

Cenpe (NM_173762) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cenpe (NM_173762) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cenpe
Synonyms:	312kDa; AU019344; BC049989; C530022J18; CENP-E; Kif10
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC225329 representing NM_173762 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

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Restriction Sites:

Sgfl-Mlul

ACCN:

NM_173762

Insert Size:

7416 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components:

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_173762.4](#), [NP_776123.3](#)

RefSeq Size: 7813 bp

RefSeq ORF: 7416 bp

Locus ID: 229841

UniProt ID: [Q6RT24](#)

Cytogenetics: 3 62.55 cM

Gene Summary: 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. The transport of pole-proximal chromosomes towards the spindle equator is favored by microtubule tracks that are deetyrosinated. 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. Suppresses chromosome congression in NDC80-depleted cells and contributes positively to congression only when microtubules are stabilized (By similarity). Plays an important role in the formation of stable attachments between kinetochores and spindle microtubules (PubMed:12925705). 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 (PubMed:12361599). Necessary for the mitotic checkpoint signal at individual kinetochores to prevent aneuploidy due to single chromosome loss (PubMed:12925705).[UniProtKB/Swiss-Prot Function]