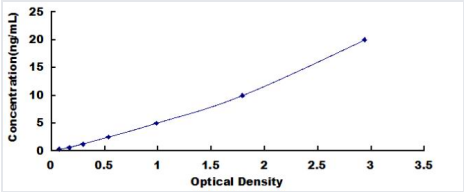
Centromere Protein E (CENPE) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Centromere Protein E (CENPE), ELISA Kit
Full Product Name	Human Centromere Protein E (CENPE) ELISA Kit
Product Gene Name	CENPE elisa kit
Product Synonym Names	CENP-E; KIF10; Centromere-Associated Protein E
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue Homogenates, Cell Lysates or Other Biological Fluids.
Detection Range	0.312-20ng/mL
Sensitivity	0.124ng/mL
Preparation and Storage	For unopened kits: All the reagents should be kept at 4 degree C upon receipt. For opened kits: Once the kit is opened, the remaining reagents still need to be stored according to the above storage conditions. In addition, return the unused wells to the foil pouch containing the desiccant pack and reseal along entire edge of zip-seal.
Molecular Weight	301,789 Da
OMIM	117143
3D Structure	ModBase 3D Structure for Q02224
RTU ELISA Kit's Advantage	The Ready-To-Use (RTU) Kits require fewer steps in setup and take less time to run. Detection Solutions are pre-diluted and total incubation time is shorter than many other ELISA Kits.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CENPE elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CENPE. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CENPE. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain CENPE, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of CENPE in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CENPE elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CENPE purchase	MBS458309 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Centromere Protein E (CENPE) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CENPE. The ELISA analytical biochemical technique of the MBS458309 kit is based on CENPE antibody-CENPE antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CENPE antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CENPE. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CENPE elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CENPE. It may not necessarily be applicable to this product.

NCBI GI #	557878612
NCBI GeneID	1062
NCBI Accession #	NP_001273663.1
UniProt Primary Accession #	Q02224
UniProt Secondary Accession #	Q4LE75; A6NKY9; A8K2U7
UniProt Related Accession #	Q02224
GenBank Nucleotide #	NM_001286734.1
NCBI Official Full Name	centromere-associated protein E isoform 2
NCBI Official Synonym Full Names	centromere protein E
NCBI Official Symbol	CENPE
NCBI Official Synonym Symbols	KIF10; CENP-E; MCPH13; PPP1R61
UniProt Protein Name	Centromere-associated protein E
UniProt Synonym Protein Names	Centromere protein E; CENP-E; Kinesin-7
Protein Family	Centromere-associated protein
UniProt Gene Name	CENPE
UniProt Synonym Gene Names	CENP-E
NCBI Protein Information	centromere-associated protein E
NCBI Summary for CENPE	Centrosome-associated protein E (CENPE) is a kinesin-like motor protein that accumulates in the G2 phase of the cell cycle. Unlike other centrosome-associated proteins, it is not present during interphase and first appears at the centromere region of chromosomes during prometaphase. This protein is required for stable spindle microtubule capture at kinetochores which is a necessary step in chromosome alignment during prometaphase. This protein also couples chromosome position to microtubule depolymerizing activity. Alternative splicing results in multiple transcript variants encoding distinct protein isoforms. [provided by RefSeq, Nov 2014]

UniProt Comments for CENPE	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:23891108, PubMed:25395579). The transport of pole-proximal chromosomes towards the spindle equator is favored by microtubule tracks that are detyrosinated (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 ().
Research Articles on CENPE	**1.** CENP-E motor activity appears to play important roles in the organization of midbody proteins to complete cytokinetic abscission.
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