

CEP55 (Phospho Ser425) Rabbit pAb

CatalogNo: YP1087 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- IHC, IF, WB, ELISA

MW

- 54kD (Calculated)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

IHC 1:100-1:300

ELISA 1:20000

IF 1:50-200

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized phospho-peptide around the phosphorylation site of human CEP55 (phospho Ser425)

Specificity

Phospho-CEP55 (S425) Polyclonal Antibody detects endogenous levels of CEP55 protein only when phosphorylated at S425. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):AAsPK

Target Information

Gene name CEP55

Protein Name Centrosomal protein of 55 kDa

Organism	Gene ID	UniProt ID
Human	55165;	Q53EZ4;
Mouse		Q8BT07;

Cellular Localization

Cytoplasm . Cytoplasm , cytoskeleton , microtubule organizing center , centrosome , centriole . Cytoplasm , cytoskeleton , microtubule organizing center , centrosome . Cleavage furrow . Midbody , Midbody ring . Present at the centrosomes at interphase. A small portion is associated preferentially with the mother centriole , whereas the majority localizes to the pericentriolar material. During mitosis , loses affinity for the centrosome at the onset of prophase and diffuses throughout the cell. This dissociation from the centrosome is phosphorylation-dependent. May remain localized at the centrosome during mitosis in certain cell types. Appears at the cleavage furrow in late anaphase and in the midbody in cytokinesis. .

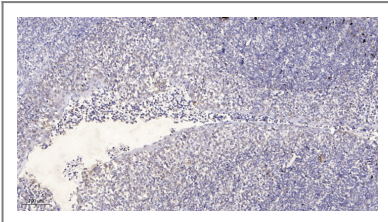
Tissue specificity

Expressed in embryonic brain (PubMed:28264986) . Expressed in fetal brain ganglionic eminence , kidney tubules and multinucleate neurons in the temporal cortex (PubMed:28264986) . Expressed in adult brain , cerebellum , kidney tubules , intestine and muscles (at protein level) (PubMed:28295209 , PubMed:28264986) . Widely expressed , mostly in proliferative tissues. Highly expressed in testis. Intermediate levels in adult and fetal thymus , as well as in various cancer cell lines. Low levels in different parts of the digestive tract , bone marrow , lymph nodes , placenta , fetal heart and fetal spleen. Hardly detected in brain.

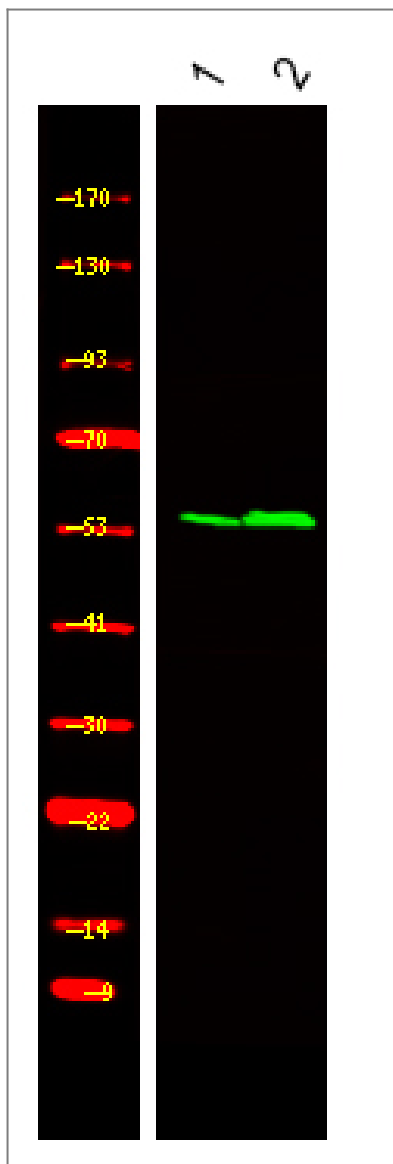
Function

Function: Plays a role in mitotic exit and cytokinesis. Not required for microtubule nucleation. Recruits PDCD6IP and TSG101 to midbody during cytokinesis. ,PTM: There is a hierarchy of phosphorylation, where both Ser-425 and Ser-428 are phosphorylated at the onset of mitosis, prior to Ser-436. Phosphorylation at Ser-425 and Ser-428 is required for dissociation from the centrosome at the G2/M boundary. Phosphorylation at the 3 sites, Ser-425, Ser-428 and Ser-436, is required for protein function at the final stages of cell division to complete cytokinesis successfully. ,subcellular location: Present at the centrosomes at interphase. A small portion is associated preferentially with the mother centriole, whereas the majority localizes to the pericentriolar material. During mitosis, loss of affinity for the centrosome at the onset of prophase and diffusion throughout the cell. This dissociation from the centrosome is phosphorylation-dependent. May remain localized at the centrosome during mitosis in certain cell types. Appears at the cleavage furrow in late anaphase and in the midbody in cytokinesis. ,subunit: Homodimer. Interacts (phosphorylated on Ser-425 and Ser-428) with PLK1. Interacts with AKAP9; the interaction occurs in interphase and is lost upon mitotic entry. Interacts with PCNT; the interaction occurs in interphase and is lost upon mitotic entry. Interacts with PDCD6IP; the interaction is direct; CEP55 binds PDCD6IP in a 2:1 stoichiometry; PDCD6IP competes with TSG101 for the same binding site. Interacts with TSG101; TSG101 competes with PDCD6IP for the same binding site; interaction is required for cytokinesis but not for viral budding. Interacts with FAM125A, VPS37B, VPS37C and VPS28. ,tissue specificity: Widely expressed, mostly in proliferative tissues. Highly expressed in testis. Intermediate levels in adult and fetal thymus, as well as in various cancer cell lines. Low levels in different parts of the digestive tract, bone marrow, lymph nodes, placenta, fetal heart and fetal spleen. Hardly detected in brain. ,

| Validation Data



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200 (4°C overnight). 2, Tris-EDTA, pH 9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 30min).



Western Blot analysis of 1 HEK-293 cell, 2, LPS 100ng/mL 30min treated ,using primary antibody at 1:1000 dilution. Secondary antibody (catalog#:RS23920) was diluted at 1:10000

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