Qty: 100 µg/200 µL

Mouse anti-Cep170

Catalog No. 41-3200
Lot No.

Mouse anti-Cep170

FORM
This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: 72-413-1 **ISOTYPE:** Mouse IgG1-kappa

IMMUNOGEN
Recombinant protein derived from the N-terminal region of the human Cep170 protein, which is 99, 89, and 88% homologous with chimpanzee, Rhesus monkey, and mouse, respectively

SPECIFICITY
This antibody is specific for the Cep170 (centrosomal protein 170 kDa isoform beta, centrosomal protein 170 kDa isoform gamma, KARP-1 binding protein 3, kiaa0470) protein. On Western blots, it identifies the target band at ~200 kDa.

REACTIVITY
Reactivity has been confirmed with HeLa and U2-OS cell lysates. Based on amino acid sequence homology, reactivity with chimpanzee and Rhesus monkey is also expected.

Sample	Western Blotting	Immuno-precipitation	Immuno-fluorescence
Human	++	++	+++
Chimpanzee	ND	ND	ND
Rhesus monkey	ND	ND	ND
Mouse	0	ND	0
Rat	0	ND	0

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1-3 µg/mL
Immunoprecipitation: 5 µg/IP reaction
Immunofluorescence: 0.5 – 1.0 µg/mL

STORAGE
Store at 2-8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

BACKGROUND

Cep170 is a centrosomal protein of ~170 kDa identified as a phosphoprotein involved in the control of cell morphology. This protein interacts with PLK1 (polo like kinase) *in vivo* and can be phosphorylated by PLK1 *in vitro,* suggesting that it is a physiological substrate for this kinase.[1] siRNA-mediated depletion studies suggest a role for Cep170 in microtubule (MT) organization and cell morphology.[2] A yeast two-hybrid screen was used to first identify Cep170 as a novel interaction partner of PLK1, containing a forkhead associated (FHA) domain in its N-terminus.[3] Cep170 is an excellent marker for centriole maturation during cell cycle,[4] with labelling used to discriminate bona fide centriole overduplication from centriole amplification that results from aborted cell division.

REFERENCES

1. Barr FA, et al. *Nat Rev Mol Cell Biol* 5:429-440, 2004.
2. Bornens M. *Curr Opin Cell Biol* 14:25-34, 2002.
3. Guarguaglini G, et al. *Mol Biol Cell* 16(3):1095-1107, 2005.
4. Fry AM, Hames RS. The role of the centrosome in cell cycle progression. In: Centrosomes in development and disease, Eds. Nigg EA, Weinheim. Wiley-VCH, pp.143-166, 2004.

RELATED PRODUCTS

Product	*Conjugate*	*Cat. No.*
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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