Revision 4

Store at -20C

#40758

Phospho-CASC5 (Thr943/Thr1155) (D8D4N) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IF-IC	H	Endogenous	265	Rabbit IgG	#Q8NG31	57082

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #72586.

Specificity/Sensitivity

Phospho-CASC5 (Thr943/Thr1155) (D8D4N) Rabbit mAb recognizes endogenous levels of CASC5 protein only when phosphorylated at Thr943 or Thr1155. The protein sequences surrounding these two sites are identical.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr943 of human CASC5 protein.

Background

Kinetochores are mitotic structures that form on centromeres and attach to mitotic spindle microtubules. Kinetochore attachment to microtubules regulates chromosome segregation and progression through mitosis. Unattached kinetochores signal to the spindle assembly checkpoint (SAC) machinery, arresting cells in mitosis (1). CASC5, also known as Knl1 or Blinkin, is the largest subunit of the Knl1–Mis12–Ndc80 complex (KMN) network, a structural component of kinetochores required for microtubule binding. CASC5 functions in the formation of kinetochore–microtubule attachments, chromosome segregation, and in activating the SAC. CASC5 has been implicated in human diseases, including leukemia and microcephaly (2). Activation of the SAC is regulated in part by mitotic phosphorylation of CASC5 at several sites, including Ser24, Ser60, Thr943, and Thr1155 (3,4). The sequences surrounding Thr943 and Thr1155 are identical.

Background References

1. Foley, E.A. and Kapoor, T.M. (2013) *Nat Rev Mol Cell Biol* 14, 25-37.
2. Ghongane, P. et al. (2014) *J Cell Sci* 127, 3415-23.
3. Nijenhuis, W. et al. (2014) *Nat Cell Biol* 16, 1257-64.
4. Schleicher, K. et al. (2017) *Open Biol* 7, 170099. doi: 10.1098/rsob.170099.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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