Revision 1

Store at -20C

#8842

Phospho-TACC3 (Ser558) (D8H10) XP® 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:
W, IF-IC	H	Endogenous	140	Rabbit IgG

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:50

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.

Specificity/Sensitivity

Phospho-TACC3 (Ser558) (D8H10) XP® Rabbit mAb recognizes endogenous levels of TACC3 protein only when phosphorylated at Ser558.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser558 of human TACC3 protein.

Background

Transforming acid coiled-coil (TACC) proteins are a family of proteins characterized by a common coiled-coil motif of approximately 200 amino acids at the carboxy-terminal end (1). Three family members have been identified in humans: TACC1, TACC2, and TACC3. These proteins are thought to be involved in centrosomal microtubule assembly and have been mapped to chromosomal regions that are disrupted in some cancers (reviewed in 2). TACC3 has been shown to be upregulated in many cancer cell lines (3). When phosphorylated at Ser558 by Aurora A, mammalian TACC3 is localized to mitotic spindles and increases microtubule stability (4,5). For this reason, it has been suggested that monitoring the localization of phosphorylated TACC3 would be an effective way to determine the efficacy of Aurora A inhibitors that show promise as anti-cancer drugs (6,7). In addition, studies have shown that TACC3 could be useful as a prognostic marker for non-small cell lung cancer (8).

Background References

1. Gergely, F. et al. (2000) *Proc Natl Acad Sci USA* 97, 14352-7.
2. Peset, I. and Vernos, I. (2008) *Trends Cell Biol* 18, 379-88.
3. Still, I.H. et al. (1999) *Genomics* 58, 165-70.
4. Kinoshita, K. et al. (2005) *J Cell Biol* 170, 1047-55.
5. Schneider, L. et al. (2007) *J Biol Chem* 282, 29273-83.
6. LeRoy, P.J. et al. (2007) *Cancer Res* 67, 5362-70.
7. Tyler, R.K. et al. (2007) *Cell Cycle* 6, 2846-54.
8. Jung, C.K. et al. (2006) *Pathol Int* 56, 503-9.

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

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Limited Uses

force or effect.

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