

TPX2 (D2R5C) XP® Rabbit mAb



- ☐ Small 100 µl
(10 western blots)
- ☐ Petite 40 µl
(4 western blots)

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #22974
 UniProt ID #Q9ULW0

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.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (IF-IC)	1:1600

For product specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

Applications W, IP, IF-IC Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 100 kDa	Isotype Rabbit IgG**
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Background: The Ras family small GTPase Ran is involved in nuclear envelope formation, assembly of the mitotic spindle, and nuclear transport (1,2). TPX2, a target of active Ran (RanGTP), is a microtubule nucleating protein. TPX2 is inactive when bound to nuclear importin-α. RanGTP activity disrupts this interaction, relieving inhibition of TPX2 (3). TPX2 binding activates Aurora A kinase and promotes its localization to the mitotic spindle (4,5). DNA damage in mitosis leads to loss of interaction between Aurora A and TPX2 and inactivation of Aurora A kinase (6). TPX2 is highly expressed in pancreatic cancer cells, and knockdown of TPX2 expression in these cells is associated with increased sensitivity to paclitaxel (7).

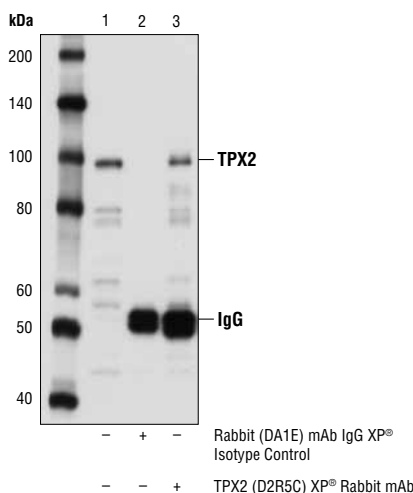
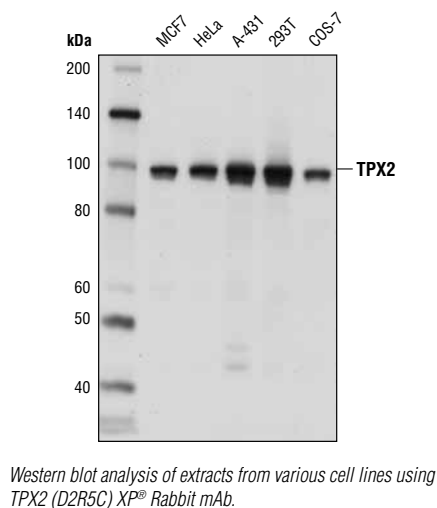
Specificity/Sensitivity: TPX2 (D2R5C) XP® Rabbit mAb recognizes endogenous levels of total TPX2 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys420 of human TPX2 protein.

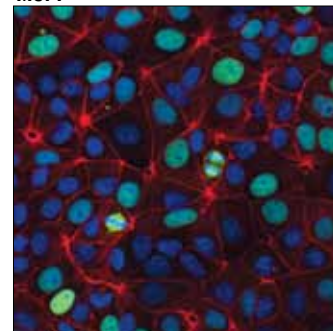
Background References:

- Quimby, B.B. and Dasso, M. (2003) *Curr Opin Cell Biol* 15, 338-44.
- Hetzer, M. et al. (2002) *Nat Cell Biol* 4, E177-84.
- Gruss, O.J. and Vernos, I. (2004) *J Cell Biol* 166, 949-55.
- Kufer, T.A. et al. (2002) *J Cell Biol* 158, 617-23.
- Bayliss, R. et al. (2004) *Cell Cycle* 3, 404-7.
- Bhatia, P. et al. (2010) *Cell Cycle* 9, 4592-9.
- Warner, S.L. et al. (2009) *Clin Cancer Res* 15, 6519-28.

Immunoprecipitation of TPX2 from MCF7 cell extracts using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or TPX2 (D2R5C) XP® Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using TPX2 (D2R5C) XP® Rabbit mAb.



MCF7



Confocal immunofluorescent analysis of MCF7 cells using TPX2 (D2R5C) XP® Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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

DRAQ5 is a registered trademark of Biostatus Limited.
 DyLight is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.
 Tween is a registered trademark of ICI Americas, Inc.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.