

#12833 Store at -20°C

TPX2 (D9Y1V) Rabbit mAb



Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H Mk	Endogenous	100	Rabbit IgG	#Q9ULW0	22974

Product Usage Information

Application

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100

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

TPX2 (D9Y1V) 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 near the carboxy terminus of human TPX2 protein.

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).

Background References

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

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

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

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner

that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.