Revision 1

#33176 Store at -20C

ZIP7/SLC39A7 (D1O3A) 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:
WB, IP	H M	Endogenous	50	Rabbit IgG	#Q92504	7922

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	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

ZIP7/SLC39A7 (D1O3A) Rabbit mAb recognizes endogenous levels of total ZIP7 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu201 of human ZIP7 protein.

Background

The solute carrier family 39 (zinc transporter) member 7 (SLC39A7, ZIP7) is an ER and Golgi membrane protein that regulates cellular zinc homeostasis by controlling release of zinc from these organelles to the cytoplasm (1,2). Zinc release mediated by ZIP7 results in activation of protein kinases that are involved in cell proliferation and migration (3,4). The protein kinase CK2 phosphorylates and activates ZIP7 in response to extracellular signals, such as growth factor stimulation (4,5). Increased expression of ZIP7 is observed in breast cancer tissues (6). Research studies indicate that ZIP7 is responsible for activation of multiple tyrosine kinases in aggressive, tamoxifen-resistant breast cancer (7,8).

Background References

1. Taylor, K.M. et al. (2004) *Biochem J* 377, 131-9.
2. Huang, L. et al. (2005) *J Biol Chem* 280, 15456-63.
3. Hogstrand, C. et al. (2009) *Trends Mol Med* 15, 101-11.
4. Taylor, K.M. et al. (2012) *Cell Cycle* 11, 1863-4.
5. Taylor, K.M. et al. (2012) *Sci Signal* 5, ra11.
6. Taylor, K.M. (2008) *Biochem Soc Trans* 36, 1247-51.
7. Taylor, K.M. et al. (2007) *Mol Med* 13, 396-406.
8. Taylor, K.M. et al. (2008) *Endocrinology* 149, 4912-20.

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 **IP:** Immunoprecipitation

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

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Limited Uses

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