

#14735 Store at -20°C

PTP-PEST (D4W7W) Rabbit mAb

Cell Signaling
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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 R	Endogenous	110 to 125	Rabbit IgG	#Q05209	5782

Product Usage Information

Application

Western Blotting

Dilution

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

PTP-PEST (D4W7W) Rabbit mAb recognizes endogenous levels of total PTP-PEST protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg747 of human PTP-PEST protein.

Background

PTP-PEST is a ubiquitously expressed cytosolic protein tyrosine phosphatase with multiple proline-rich regions that appear to be the docking sites for PTP-PEST binding partners or substrates (1). PTP-PEST regulates fibroblast adhesion, migration, and cytokinesis through its association with and dephosphorylation of p130 Cas, paxillin, PSTPIP1, WASP, and other adhesion molecules (1-5). By modulating phosphorylation states of Shc, Pyk2, Fak, and WASP, PTP-PEST negatively regulates lymphocyte activation (1,6). In mammary epithelial cells, EGF facilitates the dephosphorylation of Jak2 by PTP-PEST, thereby interfering with lactogenic hormone PRL signaling (7). PTP-PEST dephosphorylates c-Abl as well, which affects the phosphorylation states of PTP-PEST substrates such as paxillin, p130 Cas, Crk, and PSTPIP1 (8).

PTP-PEST regulates adhesion and motility of cultured epithelial cells through modulation of Rho GTPase activity (9), and is required for integrin-mediated endothelial cell adhesion and migration (10).

Background References

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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 nonfat dry milk, 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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