

Phospho-DDR1 (Tyr792) Antibody

100 µl (10 western blots)

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> > Entrez-Gene ID #780 UniProt ID #Q08345

100 μ (10 **100 μ** (10 **100 μ** (10

rev. 06/20/14

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

Applications W, IP Endogenous	Species Cross-Reactivity* H, (M, R)	Molecular Wt. 125 kDa	lsotype Rabbit**	Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. <i>Do not aliquot the antibody.</i>
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Background: The discoidin domain receptors (DDRs) are receptor tyrosine kinases with a discoidin homology repeat in their extracellular domains, activated by binding to extracellular matrix collagens. So far, two mammalian DDRs have been identified: DDR1 and DDR2 (1). They are widely expressed in human tissues and may have roles in smooth muscle cell-mediated collagen remodeling (2). Research studies have implicated aberrant expression and signaling of DDRs in human diseases related to increased matrix degradation and remodeling, such as cardiovascular disease, liver fibrosis, and tumor invasion (1).

Phosphorylation of DDR1 at Tyr792 was identified at Cell Signaling Technology using PTMScan[®], our LC-MS/MS platform for phosphorylation site discovery (3). Tyr792 is located in the activation loop of the DDR1 kinase domain.

Specificity/Sensitivity: Phospho-DDR1 (Tyr792) Antibody recognizes endogenous levels of DDR1 protein only when phosphorylated at Tyr792. This antibody may cross-reacts with other tyrosine-phosphorylated RTKs.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr792 of human DDR1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

Vogel, W. (1999) *FASEB J.* 13 Suppl, S77-S82.
Ferri, N. et al. (2004) *Am. J. Pathol.* 164, 1575-1585.
Rikova, K. et al. (2007) *Cell* 131, 1190-203.



Western blot analysis of extracts from T-47D cells, untreated (-) or treated with collagen (15 µg/ml) for the indicated times, using Phospho-DDR1 (Tyr792) Antibody (upper) or DDR1 (D1G6) XP[®] Rabbit mAb #5583 (lower). *Species cross-reactivity is determined by western blot.

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

Recommended Antibody Dilutions:Western blotting1:1000Immunoprecipitation1:100

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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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.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: 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 AII—all species expected Species enclosed in parentheses are predicted to react based on 100% homology