

#12251 Store at -20C

## Phospho-CSF-1R/M-CSF-R (Tyr699) (D10B11) Rabbit mAb


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Applications: WB, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 175	Source/Isotype: Rabbit IgG	UniProt ID: #P07333	Entrez-Gene Id: 1436
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:100
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Phospho-CSF-1R/M-CSF-R (Tyr699) (D10B11) Rabbit mAb detects endogenous levels of CSF-1R/M-CSF-R only when phosphorylated at Tyr699. This antibody may cross-react with other activated tyrosine kinases including PDGF receptors and EGFR.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr699 of human CSF-1R/M-CSF-R protein.	
<b>Background</b>	<p>Macrophage-colony stimulating factor (M-CSF, CSF-1) receptor is an integral membrane tyrosine kinase encoded by the <i>c-fms</i> proto-oncogene. M-CSF receptor is expressed in monocytes (macrophages and their progenitors) and drives growth and development of this blood cell lineage (1-3). Binding of M-CSF to its receptor induces receptor dimerization, activation, and autophosphorylation of cytoplasmic tyrosine residues used as docking sites for SH2-containing signaling proteins (4). There are at least five major tyrosine autophosphorylation sites. Tyr723 (Tyr721 in mouse) is located in the kinase insert (KI) region. Phosphorylated Tyr723 binds the p85 subunit of PI3 kinase as well as PLCγ2 (5). Phosphorylation of Tyr809 provides a docking site for Shc (5). Overactivation of this receptor can lead to a malignant phenotype in various cell systems (6). The activated M-CSF receptor has been shown to be a predictor of poor outcome in advanced epithelial ovarian carcinoma (7) and breast cancer (8).</p> <p>Phosphorylation of M-CSF receptor on Tyr669 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery, as well as in another publication (10). Autophosphorylation at Tyr699 in the kinase insert (KI) domain appears to provide a binding site for the Grb2 adaptor protein (9).</p>	
<b>Background References</b>	1. Stanley, E.R. et al. (1978) <i>Nature</i> 274, 168-70. 2. Byrne, P.V. et al. (1981) <i>J Cell Biol</i> 91, 848-53. 3. Bourette, R.P. and Rohrschneider, L.R. (2000) <i>Growth Factors</i> 17, 155-66. 4. Novak, U. et al. (1996) <i>Oncogene</i> 13, 2607-13. 5. Bourette, R.P. et al. (1997) <i>EMBO J</i> 16, 5880-93. 6. Morley, G.M. et al. (1999) <i>Oncogene</i> 18, 3076-84. 7. Toy, E.P. et al. (2001) <i>Gynecol Oncol</i> 80, 194-200. 8. Maher, M.G. et al. (1998) <i>Clin Cancer Res</i> 4, 1851-6. 9. Hamilton, J.A. (1997) <i>J Leukoc Biol</i> 62, 145-55. 10. Downing, J.R. et al. (1991) <i>Mol Cell Biol</i> 11, 2489-95.	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting <b>IP:</b> Immunoprecipitation
<b>Cross-Reactivity Key</b>	

**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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