

#2857 Store at -20C

Phospho-DUSP1/MKP1 (Ser359) (125E2) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	40	Rabbit IgG	#P28562	1843

Product Usage Information

Application

Western Blotting
Immunoprecipitation

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

Phospho-DUSP1/MKP1 (Ser359) (125E2) Rabbit mAb detects endogenous levels of DUSP1 only when phosphorylated at serine 359.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser359 of human DUSP1.

Background

MAP kinases are inactivated by a family of dual-specificity protein phosphatases (DUSP) that differ in their substrate specificity, tissue distribution, inducibility by extracellular stimuli and cellular localization. DUSP1/MKP1 (MAP Kinase phosphatase 1) is primarily localized in the nucleus, and has broad substrate specificity towards p44/42 MAPK, p38 MAPK and SAPK/JNK (1-3). DUSP1's transcription and activity are tightly regulated. First, DUSP1 is transcriptionally induced through p44/42 MAPK, p53 and Jak2 (2,4,5). Second, DUSP1 is phosphorylated by p44/42 MAPK at Ser359 and Ser364 in its carboxy-terminal region, which inhibits DUSP1 degradation through the ubiquitin pathway (6).

Background References

1. Sun, H. et al. (1993) *Cell* 75, 487-93.
2. Brondello, J.M. et al. (1997) *J Biol Chem* 272, 1368-76.
3. Franklin, C.C. and Kraft, A.S. (1997) *J Biol Chem* 272, 16917-23.
4. Li, M. et al. (2003) *J Biol Chem* 278, 41059-68.
5. Sandberg, E.M. et al. (2004) *J Biol Chem* 279, 1956-67.
6. Brondello, J.M. et al. (1999) *Science* 286, 2514-7.

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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