Technical Data Sheet

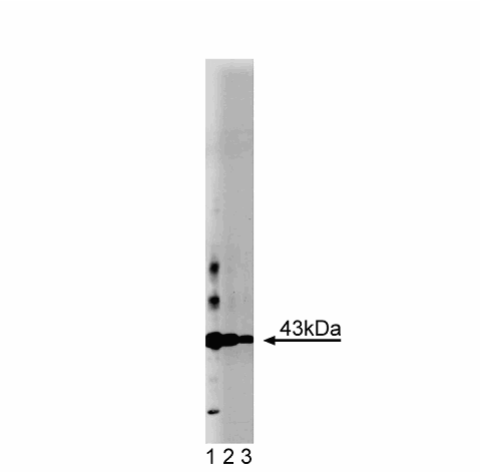
Purified Mouse Anti-MKP2

Product Information

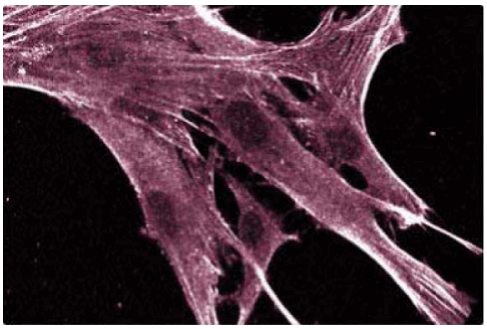
Material Number:	**610850**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	48/MKP2
Immunogen:	Rat MKP2 aa. 13-127
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Frog, Human, Mouse
Target MW:	43 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The mitogen activated protein (MAP) kinases mediate signal transduction pathways involved in cellular growth and differentiation. These MAP kinases, including ERK1 and ERK2, are activated by phosphorylation on Tyr and Thr by MEK (MAP and ERK Kinase). Regulation of the resulting physiological effects of MAP Kinase activation is affected in part by **M**AP **K**inase **p**hosphatases (MKPs). These phosphatases have dual specificity, dephosphorylating both the tyrosine and threonine residues on MAP kinases. MKP2, which is widely expressed in human tissues, specifically dephosphorylates activated ERKs and JNK. These phosphatases have overlapping substrate specificities for the three known families of MAP kinases - p38, ERK, and JNK. All of the known MKPs contain a highly conserved carboxyl-terminal catalytic domain flanked by two CH2 (CDC25 homology 2) domains.



Western blot analysis of MKP2 on rat spleen lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-MKP2.*



Immunofluorescent staining on FHS cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
611471	Rat Spleen Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Black EJ, Walker M, Clark W, MacLaren A, Gillespie DA. Cell transformation by v-Jun deactivates ERK MAP kinase signalling. *Oncogene.* 2002; 21(42):6540-6548.(Clone-specific: Western blot)

Hirsch DD, Stork PJ. Mitogen-activated protein kinase phosphatases inactivate stress-activated protein kinase pathways in vivo. *J Biol Chem.* 1997; 272(7):4568-4575.(Biology)

Misra-Press A, Rim CS, Yao H, Roberson MS, Stork PJ. A novel mitogen-activated protein kinase phosphatase. Structure, expression, and regulation. *J Biol Chem.* 1995; 270(24):14587-14596.(Biology)