Technical Data Sheet

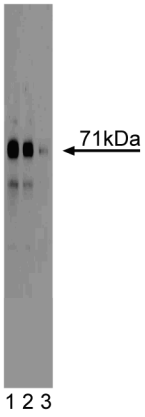
Purified Mouse Anti-MEKK3

Product Information

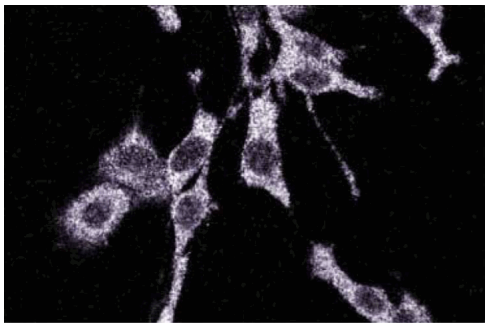
Material Number:	**611102**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	40/MEKK3
Immunogen:	Human MEKK3 aa. 27-135
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog
Target MW:	71 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The Ras signaling pathway links signals from growth factor receptors to activation of the MEK/ERK kinases. This cascade of phosphorylation leads to cell growth and differentiation. External stimuli such as endotoxins, UV irradiation, heat, and hyperosmolarity, induce an array of cellular responses that culminate with gene expression. These processes are controlled by the MKK3/p38MAP kinase cascade. A third pathway responsive to environmental stress, cell death, or apoptosis is regulated by SEK/SAPKs. When overexpresssed, MEKK3 is a kinase that is capable of activating both the ERK and SAPK cascades. MEKK3 is 626 amino acids long and is ubiquitously expressed. It is positioned upstream of SEK and MEK in the signaling pathways and directly phosphorylates these enzymes. Overexpression of MEKK3 results in the activation of NFκB. Thus, MEKK3 represents an emerging family of kinases that is capable of inducing more than one signaling pathway. This indicates that specificity in the signaling cascades is probably achieved by effector kinases such as the ERKs and SAPKs.



Western blot analysis of MEKK3 on a HeLa cell lysate (Human cervical epitheloid carcinoma; ATCC CCL-2). *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-MEKK3 antibody.*



Immunofluorescence staining of RSV-3T3 cells.

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
611449	HeLa Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Ellinger-Ziegelbauer H, Brown K, Kelly K, Siebenlist U. Direct activation of the stress-activated protein kinase (SAPK) and extracellular signal-regulated protein kinase (ERK) pathways by an inducible mitogen-activated protein Kinase/ERK kinase kinase 3 (MEKK) derivative. *J Biol Chem.* 1997; 272(5):2668-2674.(Biology)