

Technical Data Sheet

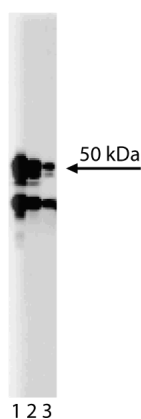
Purified Mouse Anti-MEK5**Product Information**

Material Number:	610956
Alternate Name:	MAP Kinase-5
Size:	50 µg
Concentration:	250 µg/ml
Clone:	21/MEK5
Immunogen:	Human MEK5 aa. 13-188
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

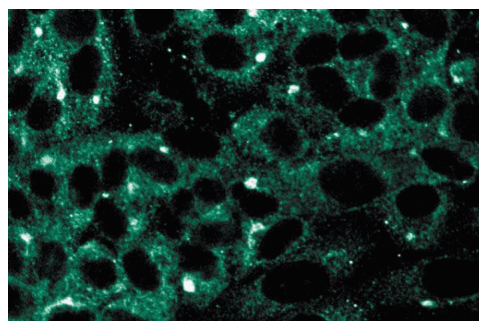
Description

The mitogen-activated protein (MAP) kinase cascade participates in the Ras signal transduction pathway. The MAP kinase cascade consists of MEK kinase (Raf-1 or B-Raf), MAP/ERK kinase (MEK1 or MEK2), and extracellular-regulated protein kinase (ERK1 or ERK2). Raf becomes activated following its interaction with Ras-GTP (activated Ras). Via phosphorylation reactions, Raf activates MEK which, in turn, activates ERK. MEK5, also known as MAP Kinase 5, is a 50 kDa protein that is 40% identical to MEK1 and MEK2. Alternative splicing results in two MEK5 isoforms: α (50 kDa) and β (40 kDa). MEK5 β has been reported to be ubiquitously expressed while MEK5 α is expressed primarily in the liver and brain. The N-terminal amino acid sequence of MEK5 α resembles sequences found in actin cytoskeletal proteins, indicating that MEK5 α may associate with the cytoskeleton. However, the role of MEK5 in the MAP kinase pathway and its substrate remain to be identified.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of MEK5 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-MEK5 antibody.



Immunofluorescence staining on human endothelial 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
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

References

English JM, Vanderbilt CA, Xu S, Marcus S, Cobb MH. Isolation of MEK5 and differential expression of alternatively spliced forms. *J Biol Chem.* 1995; 270(48):28897-98902.(Biology)
Zhou G, Bao ZQ, Dixon JE. Components of a new human protein kinase signal transduction pathway. *J Biol Chem.* 1995; 270(21):12665-12669.(Biology)