



Qty: 100 µg/200 µl

Mouse anti-MKK7

Catalog No. 32-7000

Lot No.

Mouse anti-MKK7

FORM

This monoclonal antibody is supplied as a 200 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: 2E3G1

ISOTYPE: Mouse IgG₁

IMMUNOGEN

Recombinant GST-fusion protein containing full length human MKK7 sequence.

SPECIFICITY

This antibody reacts with the ~47 kDa human and mouse MKK7 protein. There is no cross reactivity to MKK4.

REACTIVITY

Reactivity is confirmed with MKK7 transfected COS cells, MDCK, mouse liver and Caco2 cell lysates. MDCK is the recommended positive control for this antibody.

Sample	Immuno-fluorescence	Western Blotting	ELISA
Human	++	++	+++
Mouse	++	++	+++
Rat	ND	ND	ND
Dog	ND	++	ND
Immunogen	ND	ND	+++

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Immunofluorescence: 15-20 µg/ml

Western Blotting: 1-3 µg/ml

ELISA: 0.1-1 µg/ml

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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(Rev 10/08) DCC-08-1089

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BACKGROUND

Mitogen-activated protein kinase (MAP kinase) signal transduction pathways have been implicated in multiple physiological and pathophysiological processes including growth differentiation, survival and death. The p38 group of MAP kinases is activated by treatment of cells with proinflammatory cytokines and by exposure to environmental stress. One important function of the p38 signaling pathways appears to be the regulation of cytokine expression. The MAP kinases are activated by conserved protein kinase signaling modules, which include a MAP kinase kinase kinase (MKKK) and a dual-specificity MAP kinase kinase (MKK). The MKKK phosphorylates and activates the MKK, which, in turn, activates the MAP kinase by dual phosphorylation on threonine and tyrosine residues within a Thr-Xaa-Tyr motif located in protein kinase subdomain VIII.

MKK7 is a novel activator of c-Jun N-terminal kinase (JNK). This 47-Kda protein is widely expressed in human and mice. The kinase domain of MKK7 is closely related to a *Drosophila* JNK kinase dHep (69% homology) and *C. elegans* (54% homology), and it is mildly related to MKK4, MKK3, and MKK6. MKK7 phosphorylates and activates JNK1 in vitro (5).

REFERENCES

1. Enslen, H et al. *The EMBO Journal* 19(6): 1301-1311, 2000.
2. Wysk, M. et al. *Proc. Natl. Acad. Sci.* 96(7): 3763-3768, 1999.
3. Enslen, H et al. *J. Biol. Chem.* 273(3): 1741-1748, 1998.
4. Raingeaud, J et al. *Molecular and Cellular Biology* 16(3): 1247-1255, 1996.
5. Tournier C, et al: *Genes Dev* 15(11):1419-26, 2001

RELATED PRODUCTS

Product	Clone/PAD*	Cat. No.
Mouse anti-ERK1	ERK-6B11	13-8600
Rabbit anti-ERK2	Polyclonal	71-1800
Mouse anti-ERK2	107	13-4800
Mouse anti-ERK1+ERK2	ERK-7D8	13-6200
Rabbit anti-ERK1+ERK2	Polyclonal	61-7400
Mouse anti-ERK3	ERK3-11D10	32-4100
Mouse anti-MEK-1	3D9	13-3500
Rabbit anti-MEKK1	ZK1	51-3400
Mouse anti-MKK3	4G11D7	32-6900
Mouse anti-MKK6	5C8E10	32-7100
Mouse anti-p38-alpha	p38-3F11	33-1300
Mouse anti-p38-beta2	p38-11A5	33-8700
Rabbit anti-Phosphoserine	Z-PS1	61-8100
Rabbit anti-Phosphothreonine	Z-PT1	71-8200
Mouse anti-Phosphothreonine	PT-5H5	13-9200
Mouse anti-Phosphotyrosine	PY20	03-7700
Mouse anti-Phosphotyrosine	PY-7E1	13-5900
PS/PT/PY Sampler Pack		90-0200
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

*PAD: Polyclonal Antibody Designation

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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