For Research Use Only

Phospho-MEK1 (Thr386) Monoclonal antibody

Catalog Number:68015-1-Ig

2 Publications

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Basic Information

Catalog Number:
68015-1-Ig

Source:
Mouse

Isotype:
IgG1

GenBank Accession Number:
BC139729

GeneID (NCBI):
5604

ENSEMBL Gene ID:
ENSG00000169032

UNIPROT ID:
Q02750

Full Name:
mitogen-activated protein kinase kinase 1

Calculated MW:
43 kDa

Observed MW:
40-50 kDa

Purification Method:
Protein G purification

CloneNo.:
1G6A2

Recommended Dilutions:
WB: 1:5000-1:50000
IF/ICC: 1:200-1:800

Applications

Tested Applications:
WB, IF/ICC, ELISA

Cited Applications:
WB

Species Specificity:
human, mouse

Cited Species:
human, mouse

Positive Controls:

WB : HeLa cells, HEK-293 cells, A431 cells, NIH/3T3 cells, nocodazole treated HEK-293 cells, nocodazole treated A431 cells, Calyculin A treated NIH/3T3 cells, Calyculin A treated HeLa cells, λ phosphatase treated HeLa cells

IF/ICC : Calyculin A treated HeLa cells,

Background Information

MAP2K1 encodes MAPK1, also known as MEK1. MEK1 variants can enhance MEK1 expression and ERK1 phosphorylation that together lead to continuous activation of MEK/ERK signaling pathway. MEK1 bind directly to ERK2 through a region in the N terminus of MEK. In addition, a proline-rich (PR) regulatory sequence in MEK is also involved in MEK-ERK association and signal propagation. The coupling between MEK1 and ERK2 is enhanced through phosphorylation on S298 in the MEK1 PR region, whereas phosphorylation on MEK1 T292 releases the complex. MEK1 T292 is a substrate of ERK2, but the site is also phosphorylated at a basal level when ERK2 is inhibited, suggesting several regulators of this site . Although the S298 site in MEK2 has been conserved, it lacks the T292 phosphorylation site, and it is not a substrate of PAK1. (PMID: 31972311, PMID: 17928366, PMID: 22177953)

Notable Publications

Author	Pubmed ID	Journal	Application
Sheng Gao	42208102	Phytomedicine	WB
Hao Qin	37405911	Cell Rep	WB

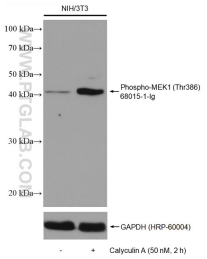
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

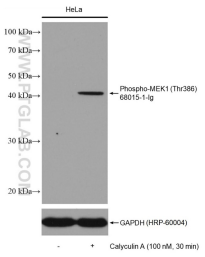
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

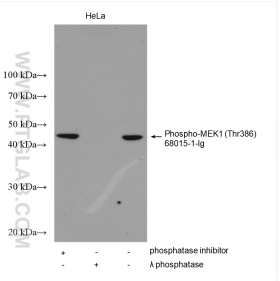
Selected Validation Data



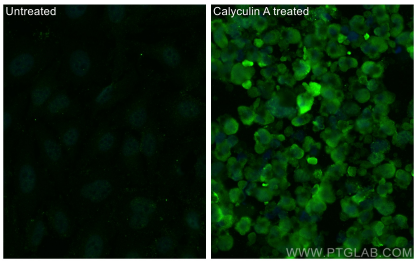
Non-treated NIH/3T3 cells and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 68015-1-Ig (Phospho-MEK1 (Thr386) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Non-treated HeLa cells and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 68015-1-Ig (Phospho-MEK1 (Thr386) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with GAPDH antibody as loading control.



Non-treated HeLa cells, phosphatase inhibitor treated and λ phosphatase treated HeLa cells were subjected to SDS PAGE followed by western blot with 68015-1-Ig (Phospho-MEK1 (Thr386) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed Calyculin A treated HeLa cells using Phospho-MEK1 (Thr386) antibody (68015-1-Ig, Clone: 1G6A2) at dilution of 1:400 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002).