For Research Use Only

Phospho-MEK1 (Ser298) Recombinant antibody

Catalog Number:84691-1-RR 1 Publications

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Basic Information

Catalog Number:
84691-1-RR

Concentration:
1000 ug/ml

Source:
Rabbit

Isotype:
IgG

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:
40-45 kDa

Purification Method:
Protein A purfication

CloneNo.:
241719G5

Recommended Dilutions:
WB: 1:5000-1:50000
FC (Intra): 0.13 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, FC (Intra), ELISA

Cited Applications:
WB

Species Specificity:
human

Cited Species:
human

Positive Controls:

WB : Calyculin A treated PC-3 cells,

FC (Intra) : Calyculin A treated HEK-293 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 enzymatic activity is regulated by site-specific phosphorylation that can be activated with phosphorylation of Ser217/Ser221 by Raf kinase or suppressed by phosphorylation of Thr286 and Thr292 by CDK1 and CDK5 or Thr292 and Thr386 by ERK1/2. (PMID: 31972311, PMID: 17928366, PMID: 22177953)

Notable Publications

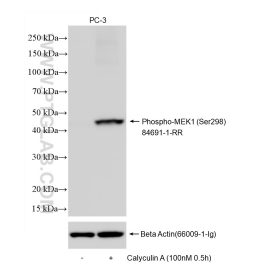
Author	Pubmed ID	Journal	Application
Qikang Yan	40027130	Front Oncol	WB

Storage

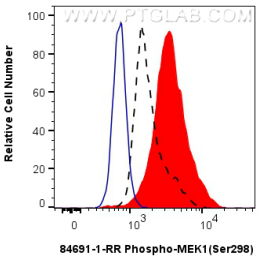
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

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

Selected Validation Data



Non-treated and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 84691-1-RR (Phospho-MEK1 (Ser298)) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Actin (66009-1-Ig) antibody as a loading control.



1X10^6 HEK-293 cells untreated (dashed lines) or treated with Calyculin A which intracellularly stained with 0.13 ug Phospho-MEK1 (Ser298) Recombinant antibody (84691-1-RR, Clone:241719G5) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.13 ug Rabbit IgG Isotype Control RecAb (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.