For Research Use Only

ERK1/2 Recombinant monoclonal antibody

Catalog Number:83533-1-RR 18 Publications

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Basic Information

Catalog Number:
83533-1-RR

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG20350

GenBank Accession Number:
BC013992

GeneID (NCBI):
5595

UNIPROT ID:
P27361

Full Name:
mitogen-activated protein kinase 3

Calculated MW:
43 kDa

Observed MW:
38-44 kDa

Purification Method:
Protein A purification

CloneNo.:
4P8

Recommended Dilutions:
WB: 1:5000-1:20000
IHC-Autostainer: 1:50-1:500
IHC: 1:50-1:500
IF/ICC: 1:200-1:800
FC (Intra): 0.25 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, IHC, IHC-Autostainer, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : MCF-7 cells, Jurkat cells, HEK-293 cells, HepG2 cells, C6 cells, NIH/3T3 cells, rat brain tissue

IHC-Autostainer : human pancreas tissue,

IHC : human cervical cancer tissue, human intrahepatic cholangiocarcinoma tissue, human liver cancer tissue

IF/ICC : HeLa cells,

FC (Intra) : HepG2 cells,

Background Information

ERK1 and ERK2 belongs to the protein kinase superfamily. It is involved in both the initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors such as ELK-1. ERK1/2 catalized the reaction: ATP + a protein = ADP + a phosphoprotein. It is activated by tyrosine phosphorylation in response to INS and NGF. This antibody can recognize both ERK1 and ERK2 with the molecular mass of 38-44 kDa.

Notable Publications

Author	Pubmed ID	Journal	Application
Yue Liu	42555528	Virulence	
Bo-Han Lin	42455592	FASEB J	WB
Yidong Hu	42540374	Bioact Mater	

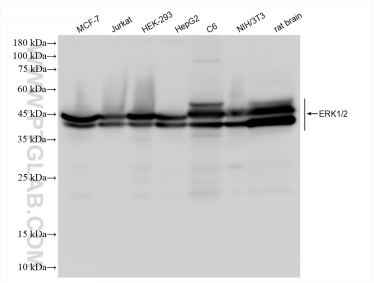
Storage

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

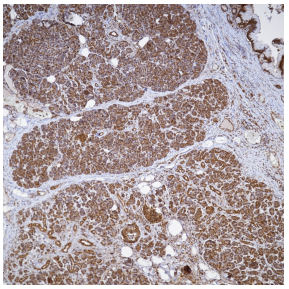
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

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

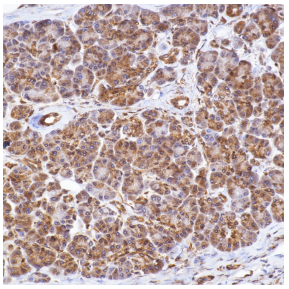
Selected Validation Data



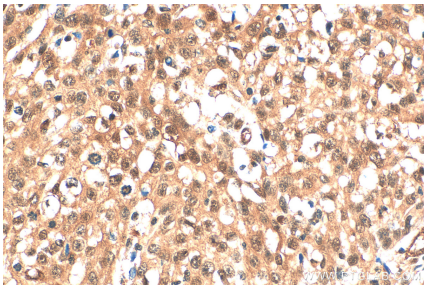
Various lysates were subjected to SDS PAGE followed by western blot with 83533-1-RR (ERK1/2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



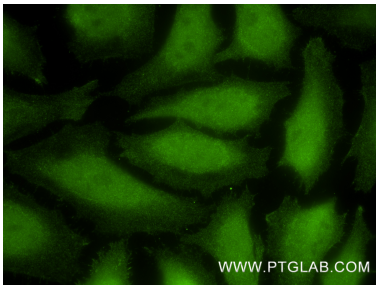
Immunohistochemical analysis of paraffin-embedded human pancreas tissue slide using 83533-1-RR (ERK1/2 antibody) at dilution of 1:100 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). Staining was performed on the Epredia 480S Autostainer. The staining was performed on an autostainer.



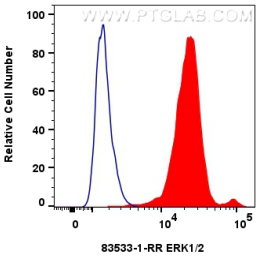
Immunohistochemical analysis of paraffin-embedded human pancreas tissue slide using 83533-1-RR (ERK1/2 antibody) at dilution of 1:100 (under 40x lens).Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). Staining was performed on the Epredia 480S Autostainer. The staining was performed on an autostainer.



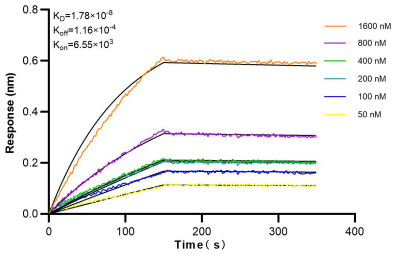
Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using 83533-1-RR (ERK1/2 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ERK1/2 antibody (83533-1-RR, Clone: 4P8) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



1x10^6 HepG2 cells were intracellularly stained with 0.25 ug ERK1/2 Recombinant antibody (83533-1-RR, Clone:4P8) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Control Antibody (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Biolayer interferometry (BLI) kinetic assays of 83533-1-RR against Human ERK1/2 were performed. The affinity constant is 17.8 nM.