

HA724764



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	ELISA(Cap)
Clone number:	SC58-01

Description: The first mitogen-activated protein kinase to be discovered was ERK1 (MAPK3) in mammals. Since ERK1 and its close relative ERK2 (MAPK1) are both involved in growth factor signaling, the family was termed "mitogen-activated". With the discovery of other members, even from distant organisms (e.g. plants), it has become increasingly clear that the name is a misnomer, since most MAPKs are actually involved in the response to potentially harmful, abiotic stress stimuli (hyperosmosis, oxidative stress, DNA damage, low osmolarity, infection, etc.). Because plants cannot "flee" from stress, terrestrial plants have the highest number of MAPK genes per organism ever found[citation needed]. Thus the role of mammalian ERK1/2 kinases as regulators of cell proliferation is not a generic, but a highly specialized function.

Immunogen: Synthetic phosphopeptide corresponding to residues surrounding Thr202/Tyr204 of human ERK1.

Positive control: Recombinant Human ERK1 (pT202+pY204)/ERK2 (pT185+pY187) protein (HA211528).

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt: P27361 Human | P28482 Human | P63085 Mouse | Q63844 Mouse | P21708 Rat | P63086 Rat

Recommended Dilutions:

ELISA(Cap) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [SA43-03] to ERK1/2 (Detector) (HA724765) and Recombinant Human Phospho-ERK1 (T202+Y204)/ERK2 (T185+Y187) protein (HA211528) as the standard. The reference range value is 1,562-200,000 pg/mL.

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at 2-8°C. Avoid freeze.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

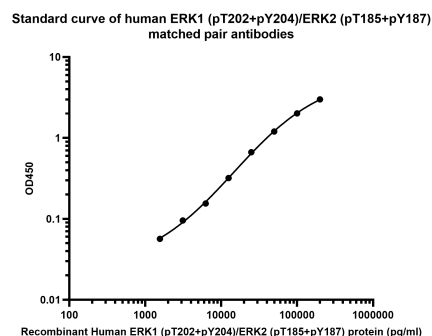
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Fig1: Sandwich ELISA analysis of Human ERK1 (pT202+pY204)/ERK2 (pT185+pY187) protein matched pair antibodies

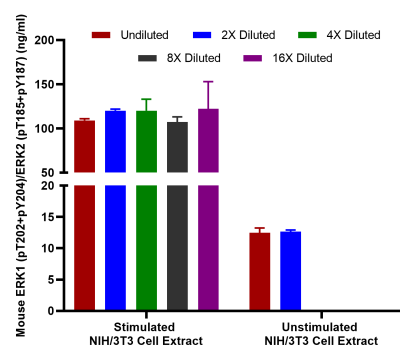
Capture: HA724764, Phospho-ERK1 (T202+Y204)/ERK2 (T185+Y187) Rabbit mAb [SC58-01]

Detector: HA724765, ERK1/2 Rabbit mAb [SA43-03]



Elisa assay was performed by coating wells of a 96-well plate with 100 μ l per well of capture antibody (HA724764) diluted in carbonate/bicarbonate buffer, at a concentration of 5 μ g/mL overnight at 4°C. Wells of the plate were washed, blocked with 150 μ l 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Human ERK1 (pT202+pY204)/ERK2 (pT185+pY187) protein (HA211528) starting from 200,000 pg/mL to 0 pg/mL and detect antibody (HA724765, Biotin, 0.2 μ g/mL) for 1 hour at 30°C with shaking. Then the plate was washed and incubated with 100 μ l per well of SA-HRP for 0.5 hour at 30°C with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Fig2: Interpolated concentrations of native ERK1 (pT202+pY204)/ERK2 (pT185+pY187) in NIH/3T3 stimulated or unstimulated with 200nM PMA for 30 minutes, NIH/3T3 cell extract samples based on a 1,000 μ g/mL extract load.



Capture: HA724764, Human Phospho-ERK1 (T202+Y204)/ERK2 (T185+Y187) Rabbit mAb [SC58-01]

Detector: HA724765, ERK1/2 Rabbit mAb [SA43-03]

The concentrations of ERK1 (pT202+pY204)/ERK2 (pT185+pY187) were measured in duplicates, interpolated from the ERK1 (pT202+pY204)/ERK2 (pT185+pY187) standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean $\pm$ SD, n=2). The mean ERK1 (pT202+pY204)/ERK2 (pT185+pY187) concentration was determined to be 116 ng/mL in stimulated NIH/3T3 cell extract and 12 ng/mL in unstimulated NIH/3T3 cell extract.

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Ye, Q. et al. 2014. Lactoferrin deficiency promotes colitis-associated colorectal dysplasia in mice. PloS one. 9: e103298.
2. Polidoro, L. et al. 2013. Vitamin D protects human endothelial cells from H₂O₂ oxidant injury through the Mek/Erk-Sirt1 axis activation. Journal of cardiovascular translational research. 6: 221-31.

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