

Phospho-ERK1/2 (Thr202, Tyr204) Monoclonal Antibody (MILAN8R), PE, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human, Mouse
Published Species	Artificial Control, Mouse, Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MILAN8R
Conjugate	PE
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2572695

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	5 Publications

Product Specific Information

Description: This MILAN8R monoclonal antibody recognizes human and mouse extracellular signal-regulated kinases 1 and 2 (also known as ERK1/2, p44/p42, or MAPK3/1) when phosphorylated on T202/Y204. ERK1/2 belong to a family of conserved serine/threonine protein kinases known as mitogen-activated protein kinases (MAPKs) that are involved in many cellular programs such as proliferation, differentiation, motility, and survival. ERK1/2 signaling is activated in response to numerous extracellular stimuli including mitogens, growth factors, and cytokines. The primary activators of ERK1/2 are MEK1 and MEK2 which act by phosphorylating the activation loop residues T202/Y204 and T185/Y187 in ERK1 and ERK2, respectively. Several downstream targets of ERK1/2 have been identified, including p90RSK and the transcription factor Elk-1. ERK1/2 are negatively regulated by MAPK phosphatases, known as DUSPs or MKPs, as well as by chemical inhibitors of MEK including U0126 and PD98059. Disruption of the ERK pathway is common in many types of cancer.

Specificity of this MILAN8R clone was determined by ELISA, flow cytometry, and western blotting.

Applications Reported: This MILAN8R antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This MILAN8R antibody has been pre-titrated and tested by intracellular staining followed by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.125 µg) per test. A test is defined as the amount (µg)

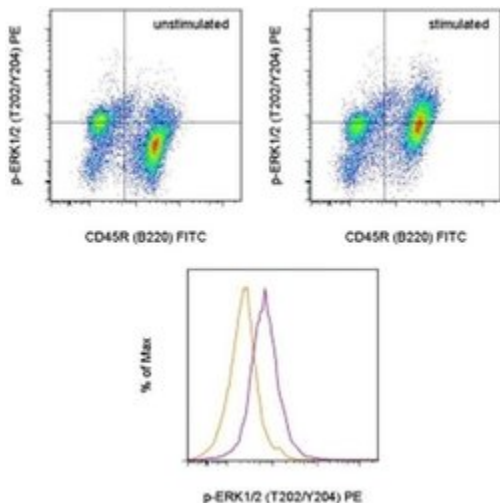
of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

Staining Protocol: We recommend using Protocol C: Two-step protocol: Fixation/Methanol. Protocol A: Two-step protocol: intracellular (cytoplasmic) proteins and Protocol B: One-step protocol: intracellular (nuclear) proteins cannot be used. All Protocols can be found in the Flow Cytometry Protocols: "Staining Intracellular Antigens for Flow Cytometry Protocol" located in the Best Protocols Section under the Resources tab online.

Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 μ m post-manufacturing filtered.

Product Images For Phospho-ERK1/2 (Thr202, Tyr204) Monoclonal Antibody (MILAN8R), PE, eBioscience™



Phospho-ERK1/2 (Thr202, Tyr204) Antibody (12-9109-42) in Flow

TOP: Mouse splenocytes were unstimulated (left) or stimulated with F (ab')₂ Anti-Mouse IgM, μ chain specific Functional Grade Purified (Product # 16-5092-85) and Anti-Mouse CD40 Functional Grade Purified (Product # 16-0401-82) (right). The cells were then intracellularly stained with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) and Anti-Human/Mouse phospho-ERK1/2 (T202/Y204) PE using the IC Fixation/Methanol Protocol. Cells in the lymphocyte gate were used for analysis. BOTTOM: Mouse splenocytes were unstimulated (orange histogram) or stimulated with F (ab')₂ Anti-Mouse IgM, μ chain specific Functional Grade Purified (Product # 16-5092-85) and Anti-Mouse CD40 Functional Grade Purified (Product # 16-0401-82) (purple histogram). The cells were then intracellularly stained with Anti-Human/Mouse CD45R (B220) FITC (Product # 11-0452-82) and Anti-Human/Mouse phospho-ERK1/2 (T202/Y204) PE using the IC Fixation/Methanol Protocol. B220+ cells in the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

5 References

Flow Cytometry (5)

The Journal of clinical investigation

Heterogeneity of leukemia-initiating capacity of chronic myelogenous leukemia stem cells.

"Published figure using Phospho-ERK1/2 (Thr202, Tyr204) monoclonal antibody (Product # 12-9109-42) in Flow Cytometry"

Authors: Zhang B,Li L,Ho Y,Li M,Marcucci G,Tong W,Bhatia R

Species
Not Applicable

Dilution
Not Cited

Year
2016

Cell reports

PRMT5 Modulates Splicing for Genome Integrity and Preserves Proteostasis of Hematopoietic Stem Cells.

"12-9109 was used in Immunocytochemistry-immunofluorescence to establish the importance of cell-intrinsic protein arginine methyltransferase 5 activity in hematopoietic stem cells."

Authors: Tan DQ,Li Y,Yang C,Li J,Tan SH,Chin DWL,Nakamura-Ishizu A,Yang H,Suda T

Species
Mouse

Dilution
Not Cited

Year
2019

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More applications with references on thermofisher.com

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