Phospho-ERK1/2 (Thr202, Tyr204) Monoclonal Antibody (MILAN8R), PerCP-eFluor 710, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human, Mouse
Published Species	Human
Host/Isotope	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PerCP-eFluor 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MILAN8R
Conjugate	PerCP-eFluor™ 710
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_2573872

Applications	Tested	Dilution	Published
Flow Cytometry (Flow)	✓	5 µL (0.06 µg)/test	2 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 and flow cytometric analysis of stimulated normal human peripheral blood cells or stimulated mouse splenocytes. This can be used at 5 µL (0.06 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 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

Protocols: 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 "Staining intracellular Antigens for Flow Cytometry Protocol" located in the Best Protocols Section under the Resources tab online.

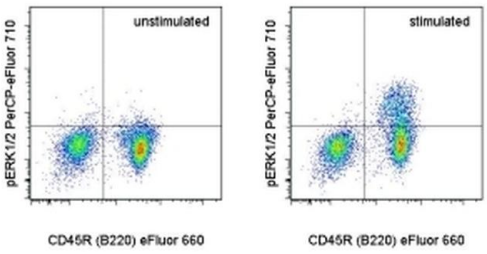
PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For Phospho-ERK1/2 (Thr202, Tyr204) Monoclonal Antibody (MILAN8R), PerCP-eFluor 710, eBioscience™



Phospho-ERK1/2 (Thr202, Tyr204) Antibody (46-9109-42) in Flow
Intracellular staining of unstimulated (left) or 15-minute anti-IgM-stimulated (right) C57Bl/6 splenocytes with Anti-Human/Mouse CD45R (B220) eFluor® 660 (Product # 50-0452-82) and Anti-Human/Mouse phospho-ERK1/2 (T202/Y204) PerCP-eFluor® 710 using the Fixation/Methanol Protocol. Cells in the lymphocyte gate were used for analysis.

2 References

Flow Cytometry (2)

Acta neuropathologica

Germline and somatic FGFR1 abnormalities in dysembryoplastic neuroepithelial tumors.

"Published figure using Phospho-ERK1/2 (Thr202, Tyr204) monoclonal antibody (Product # 46-9109-42) in Flow Cytometry"

Authors: Rivera B,Gayden T,Carrot-Zhang J,Nadaf J,Boshari T,Faury D,Zeinieh M,Blanc R,Burk DL,Fahiminiya S, Bareke E,Schüller U,Monoranu CM,Sträter R,Kerl K,Niederstadt T,Kurlemann G,Ellezam B,Michalak Z,Thom M, Lockhart PJ,Leventer RJ,Ohm M,MacGregor D,Jones D,Karamchandani J,Greenwood CM,Berghuis AM,Bens S,Siebert R,Zakrzewska M,Liberski PP,Zakrzewski K,Sisodiya SM,Paulus W,Albrecht S,Hasselblatt M,Jabado N,Foulkes WD, Majewski J

Species
Human

Dilution
Not Cited

Year
2016

Journal of immunology (Baltimore, Md. : 1950)

The Bacterial Enzyme IdeS Cleaves the IgG-Type of B Cell Receptor (BCR), Abolishes BCR-Mediated Cell Signaling, and Inhibits Memory B Cell Activation.

"Published figure using Phospho-ERK1/2 (Thr202, Tyr204) monoclonal antibody (Product # 46-9109-42) in Flow Cytometry"

Authors: Järnum S,Bockermann R,Runström A,Winstedt L,Kjellman C

Species
Not Applicable

Dilution
Not Cited

Year
2015