

**Product Data Sheet: Purified anti-Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) rabbit mAb**

<b>Catalog Number:</b>	1111
<b>Clone:</b>	ERK12T202Y204-A11
<b>Isotype:</b>	Rabbit IgG1κ
<b>Immunogen:</b>	A synthetic phospho-peptide corresponding to residues surrounding Thr202/Tyr204 of human phospho Erk1/2.
<b>Reactivity:</b>	Mouse, Human
<b>Cross Reactivity:</b>	Predicted to work with mouse, rat, and other homologues.
<b>Preparation:</b>	Protein A+G
<b>Formulation:</b>	1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA
<b>Applications:</b>	WB, Flow Cytometry
<b>Recommended Usage:</b>	1- 0.1 µg/ml. Optimum concentration should be determined by the user.
<b>Product Configuration:</b>	200 ul (0.5mg/ml, more than 200 western blots)
<b>Detection:</b>	anti-rabbit IgG

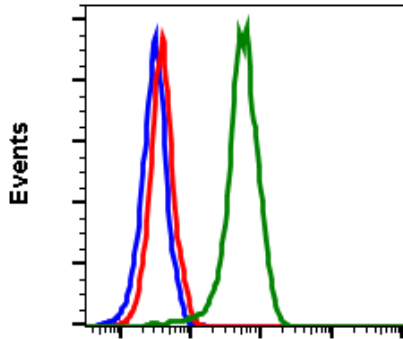
**Description**

MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of this kinase requires its phosphorylation by upstream kinases. The p44/42 MAPK (Erk1/2) are members of mitogen-activated kinases (MAPKs) of serine/threonine protein kinases. Phospho ERK1/2 can be activated by a range of extracellular stimuli, such as mitogen, growth factors, neurotransmitters, chemokines, and cytokines, through receptor tyrosine kinases (RTK), G protein-coupled receptors (GPCRs), or protein kinase C (PKC). Upstream MEK1 and MEK2 activate p44 and p42 (phospho ERK1/2) through phosphorylation of activation loop residues Thr202/Tyr204 and Thr185/Tyr187, respectively. p44/42 (ERK1/2) are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases, known as DUSPs or MKPs, along with MEK inhibitors, such as U0126 and PD98059.

**References**

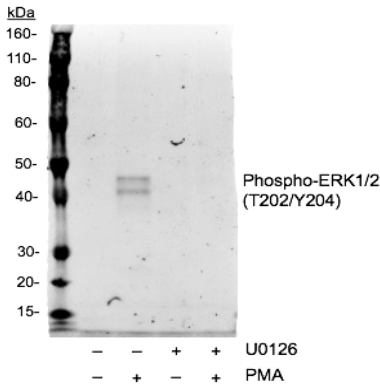
1. Warnecke N, et al. (2012) EMBO Rep. 13: 386-91.
2. Mebratu Y, et al. (2009) Cell Cycle 8:1168-75.
3. Ebisuya M, et al. (2005) J Cell Sci. 118: 2997-3002.

**Purified anti-Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) rabbit mAb Images**

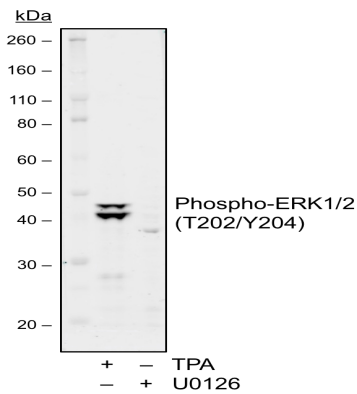


Flow cytometric analysis of Jurkat cells, secondary antibody only negative control (blue) or treated with U0126 (red) or treated with PMA (green) using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11. Cat. #1111.

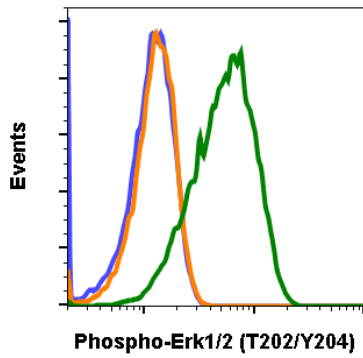
**Phospho-p44/42 MAPK**



Western blot analysis of Ramos cell extract, untreated or treated with U0126 followed by no treatment or treatment with PMA using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11. Cat. #1111.



Western blot analysis of 293T cell extract, treated with U0126 or TPA using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 at 0.1 µg/mL. Cat. #1111.



ERK12T202Y204-A11 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells, secondary antibody only (blue) or 0.1 µg/mL of isotype control Cat. #2141 (orange) or of Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 (green) Cat. #1111.