

## 12-4005: Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (Clone: A11) rabbit mAb

|                                |   |
|--------------------------------|---|
| <b>Clonality :</b>             | Monoclonal  |
| <b>Clone Name :</b>            | ERK12T202Y204-A11   |
| <b>Application :</b>           | FACS, WB  |
| <b>Reactivity :</b>            | Human   |
| <b>Conjugate :</b>             | Unconjugated  |
| <b>Format :</b>                | Purified  |
| <b>Alternative Name :</b>      | Mitogen-activated protein kinase 3, MAPK3, ERK2, p44-MAPK, PRKM3, Mitogen-activated protein kinase 1, MAPK1, ERK1, p42-MAPK, PRKM1, PRKM2 |
| <b>Isotype :</b>               | Rabbit IgG1k  |
| <b>Immunogen Information :</b> | A synthetic phospho-peptide corresponding to residues surrounding Thr202/Tyr204 of human phospho Erk1/2.                                  |

### Description

Human Erk1 and Erk2 Ser/Thr kinases share 84% sequence identity and nearly all functions. These MAP kinases are activated in response to mitogens and growth factors as part of the Ras-Raf-MEK-ERK signal transduction cascade. This pathway regulates cell survival, differentiation, adhesion, cell cycle progression, and many other cellular processes. Upon phosphorylation, Erk1/2 translocate to the nucleus to activate transcription factors including c-Fos, Elk1, Ets1, and SP-1. There are more than 175 known cytoplasmic and nuclear substrates of Erk1/2. The Erk1/2 cascade is upregulated in many human cancers, even when oncogenic mutations are not found. Multiple small-molecule inhibitors of Erk1/2 have been developed, including ones targeting the ATP-binding site either competitively or irreversibly.

### Product Info

|                            |   |
|----------------------------|---|
| <b>Amount :</b>            | 20 $\mu$ l / 200 $\mu$ l                                |
| <b>Content :</b>           | 1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA |
| <b>Storage condition :</b> | Store at -20°C. Avoid repeated freeze and thaw cycles.  |

### Application Note

1 $\mu$ g/mL - 0.001 $\mu$ g/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml, more than 200 western blots)

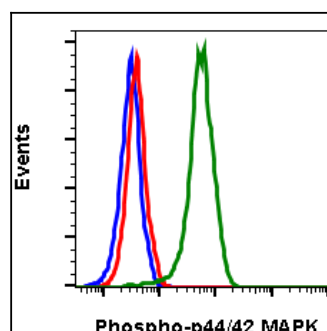


Fig-1: Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or treated with U0126 (red) or treated with PMA (green) using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11.

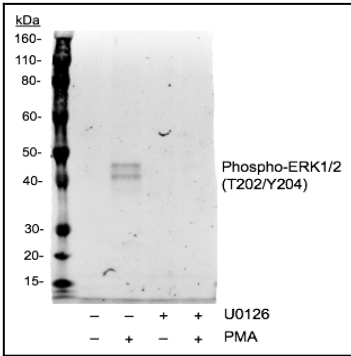


Fig 2 : Western blot analysis of Ramos cell extract untreated or treated with U0126 followed by no treatment or treatment with PMA using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11.

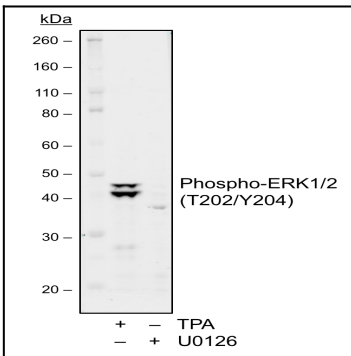


Fig-3: Western blot analysis of 293T cell extract treated with U0126 or TPA using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 at 0.1 µg/mL.

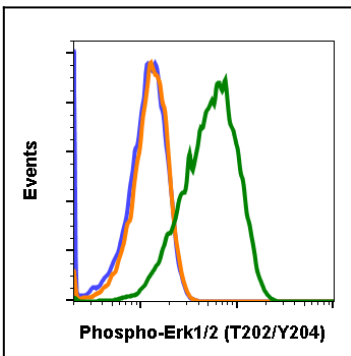


Fig-4: ERK12T202Y204-A11 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells secondary antibody only (blue) or 0.1 µg/mL of isotype control (Cat# 12-4086) (orange) or of Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 (green)

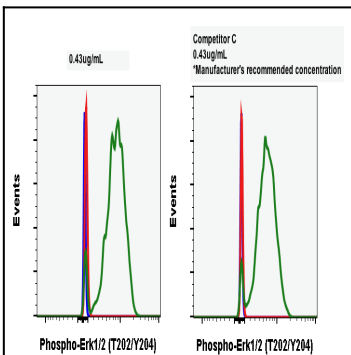


Fig-5: Flow cytometric analysis of Jurkat cells, secondary antibody only negative control (blue), or treated with U0126 (red) or with PMA (green) using Phospho-Erk1/2 (T202/Y204) antibody ERK12T202Y204-A11 or Company C antibody at 0.43 µg/mL (manufacturer's recommended concentration).

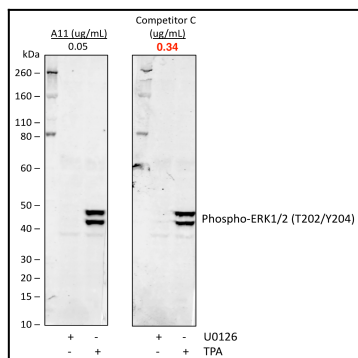


Fig-6: Western blot analysis of Ramos cells treated with U0126 or treated with TPA using 0.05 μg/mL of Phospho ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 or Company C antibody at recommended concentration of 0.34 μg/mL.