Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (A11) rabbit mAb

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Catalog: #1111 **Store at:** -20ºC

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Detection	Clonality	Isotype
Flow Cytometry,WB	Anti-Rabbit IgG	Monoclonal	Rabbit IgGk

Format: Unconjugated

Cross Reactivity: Predicted to work with mouse, rat, and other homologues.

Formulation: PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA

Preparation: Protein A

Reactivity: Human,Mouse

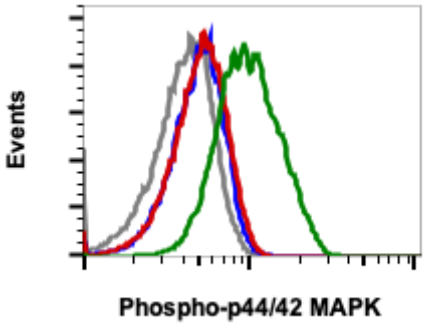
Recommended Usage: 1µg/mL – 0.001µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.

Immunogen: A synthetic phospho-peptide corresponding to residues surrounding Thr202/Tyr204 of human phospho Erk1/2.

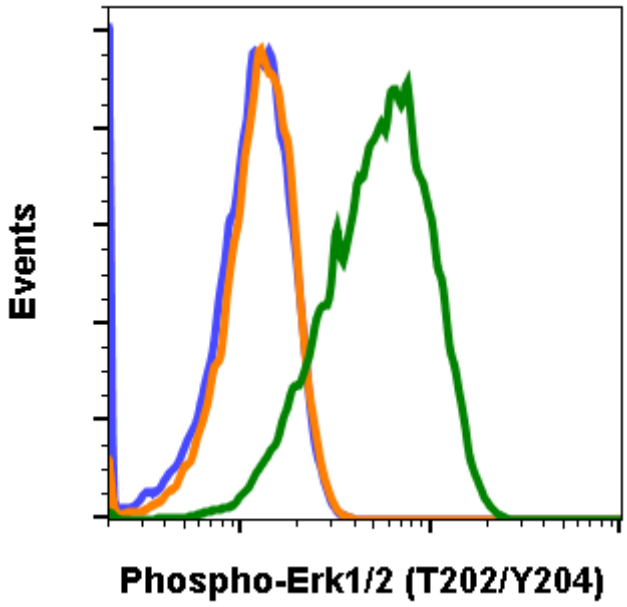
Description: Human Erk1 and Erk2 Ser/Thr kinases share 84% sequence identity and nearly all functions. These MAP kinases are activated in response to mitogens and growth factors as part of the Ras-Raf-MEK-ERK signal transduction cascade(1-3). This pathway regulates cell survival, differentiation, adhesion, 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 (4,5). 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 (6).

References:

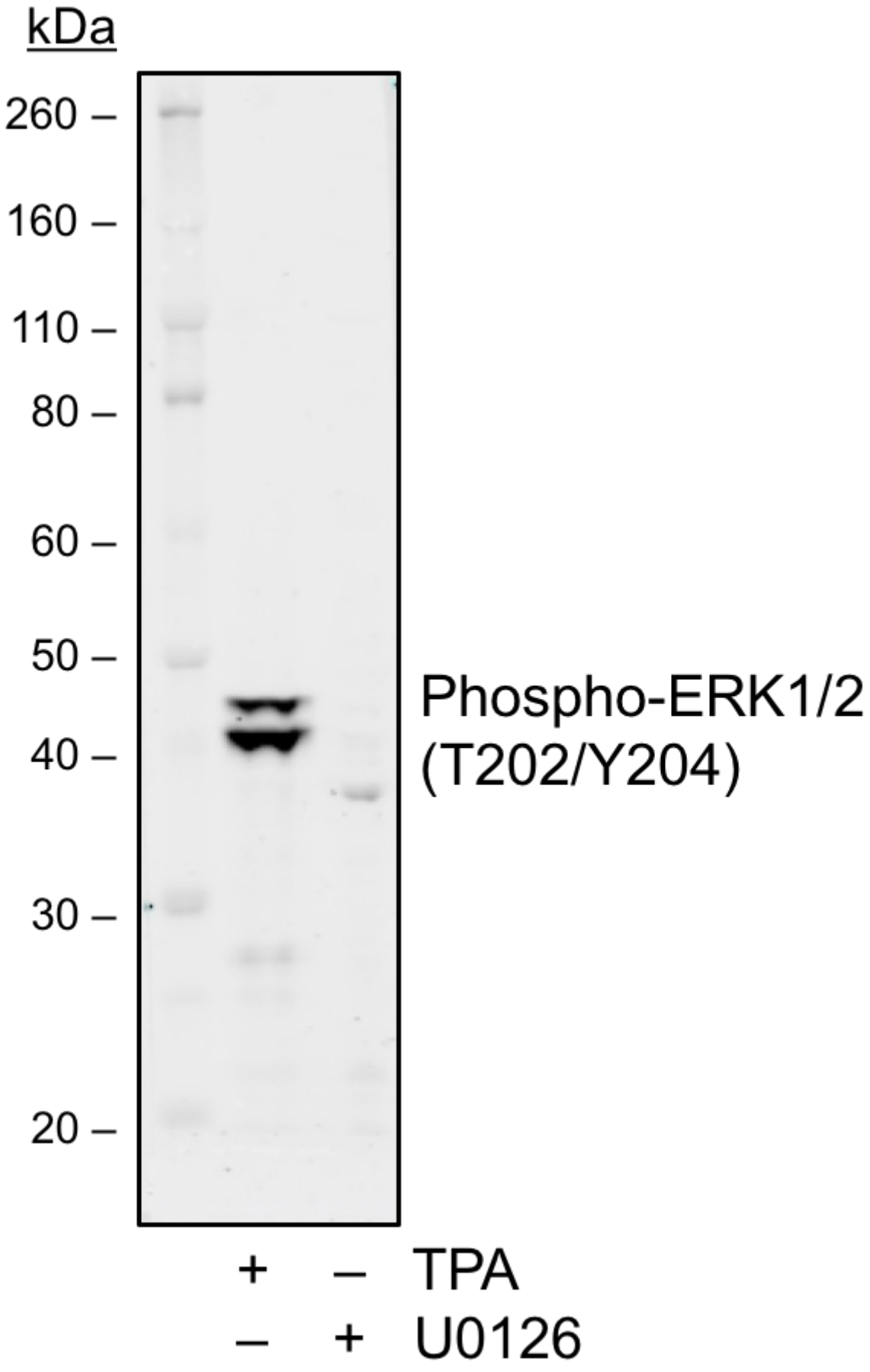
1. Blagoev B, et al., 2003, Nat Biotechnol, 21:315-318.
2. Thelemann A. et al, 2005, Mol Cell Proteomics, 4:356-376.
3. Morandell S, et al., 2008, Proteomics, 8:4383-4401.
4. Ramos JW, 2008, Biochem Cell Biol, 40:2707-2719.
5. Nakano H, et al., 1998, Proc Natl Acad Sci USA, 104:19837-19842.
6. Roskoski Jr R, 2012, Pharmacol Res, 66:105-143.



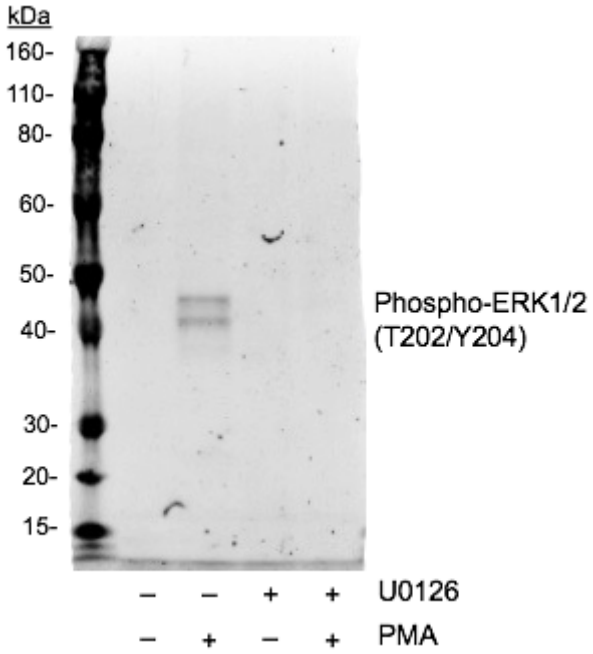
Flow cytomeric analysis of jurket cells treated with U0126 (red) or TPA (green) and stained using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11. Cat. #1111 or concentration match isotope control Cat#2141 for cells treated with U0126 (gray) or treated with TPA (blue).



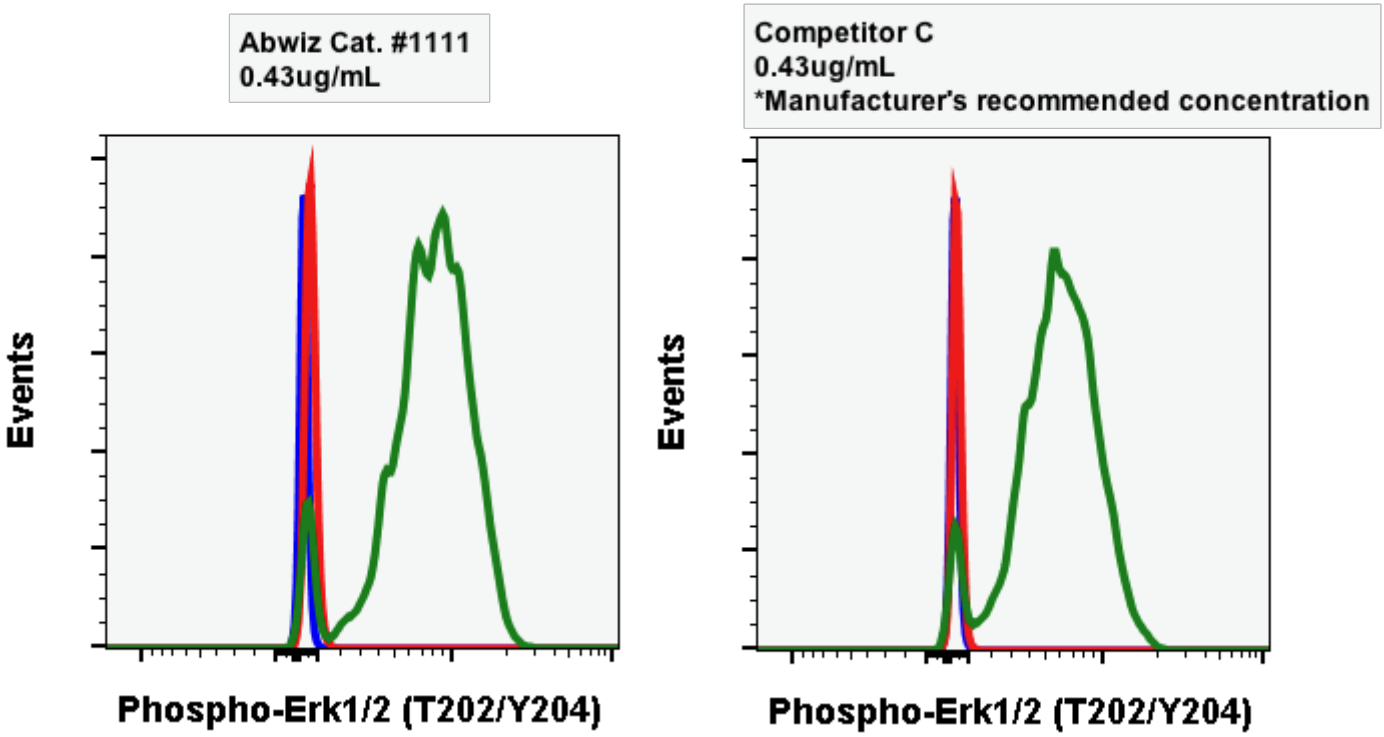
ERK12T202Y204-A11 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells secondary antibody only (blue) or 0.1 µg/mL of isotype control Cat. #2141 (orange) or of Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 (green) Cat. #1111.



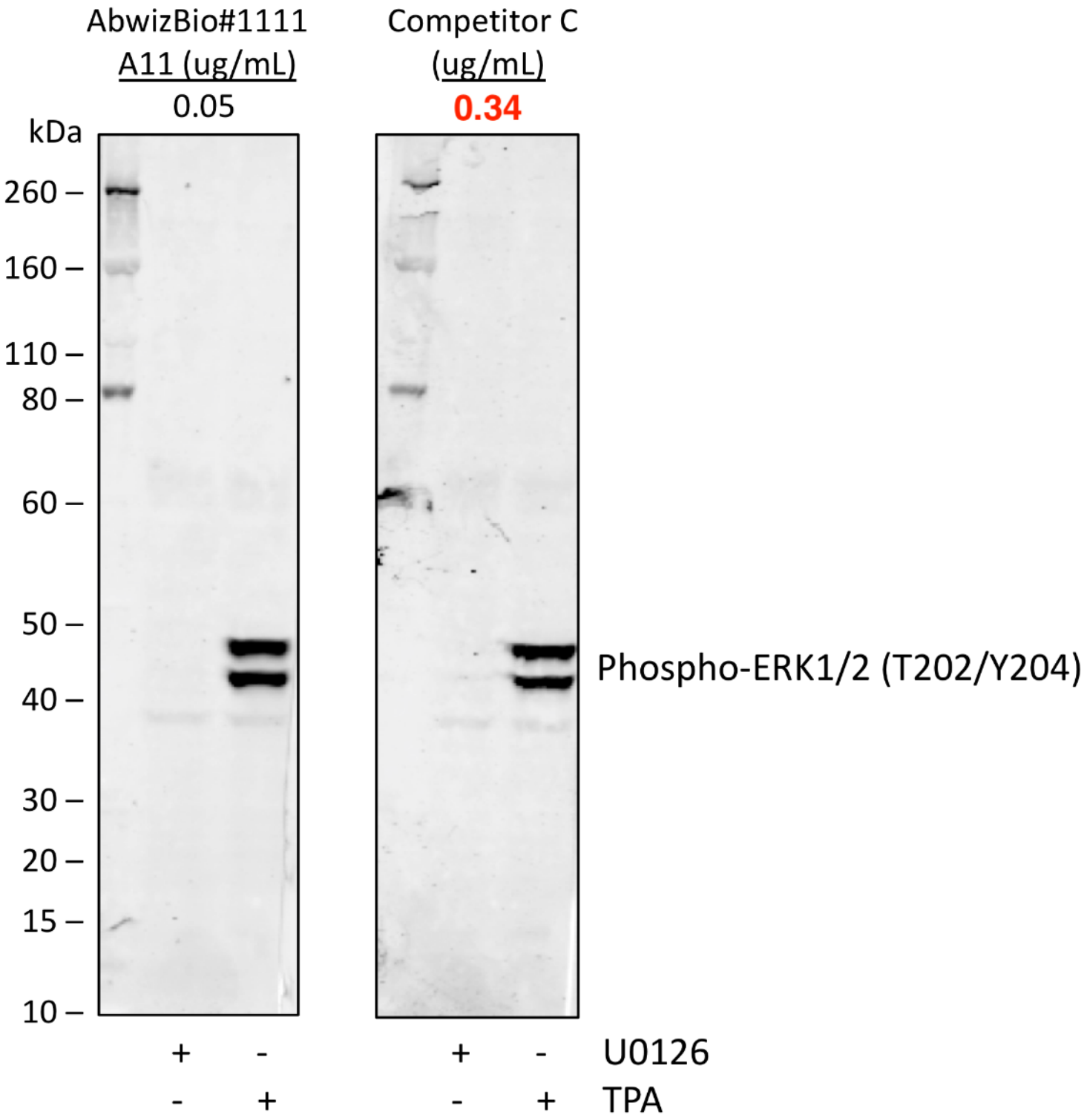
Western blot analysis of 293T cell extract treated with U0126 or TPA using Phospho-ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 at 0.1 µg/mL. Cat. #1111.



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.



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 (Abwiz Cat. #1111) or Company C antibody at 0.43 µg/mL (manufacturer's recommended concentration).



Western blot analysis of Ramos cells treated with U0126 or treated with TPA using 0.05 ug/mL of Phospho ERK1/2 (Thr202/Tyr204) antibody ERK12T202Y204-A11 Cat. #1111 or Company C antibody at recommended concentration of 0.34 ug/mL.