Phospho-ATF2 (Thr71) (G3) rabbit mAb

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Catalog: #2056 **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: 1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA

Preparation: Protein A+G

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 Thr71 of human phospho ATF2

Description: Activating transcription factor 2 (ATF2), known as cyclic AMP (cAMP) response element (CRE) binding protein 2 (CREB2) and CRE-BP1 is a member of the activating protein-1 (AP1) transcription factor family. Through homo-dimerization or hetero-dimerization with other AP1 family members, such as the CREB, Fos, Maf, or Jun family transcription factor, it regulates the expression of many genes. ATF2 is an important mediator of mammalian cell responses to various stimuli, including stress. As a transcription factor, ATF2 acts as transducing extracellular signals to the nucleus to facilitate transcriptional responses to stimuli. ATF2 is stimulated by growth factors, ultraviolet (UV) radiation, and cytokines. Stress-activated protein kinases (SAPKs)(e.g. p38 MAP Kinase) induce transcriptional activation of ATF2. ATF2 is phosphorylated at amino acids threonine-69 and threonine-71 (T69, T71). Phosphorylation at these threonine residues is essential for maximal transcriptional activity downstream of insulin/epidermal growth factor stimulation and is dependent on cooperation between c-Jun N-terminal kinase (JNK) and signaling cascades downstream of Ras. Upon T69/T71 phosphorylation, ATF2 interacts with other AP1 proteins and translocate to the nucleus to regulate the expression of hundreds of genes.

References:

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Lau E, and Ronai ZA. (2012) J Cell Sci. 125:2815–2824.
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Raingeaud J, et al., (1995) J Biol Chem. 270:7420–7426.
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Livingstone C, et al., (1995) EMBO J. 1995,14:1785–97.
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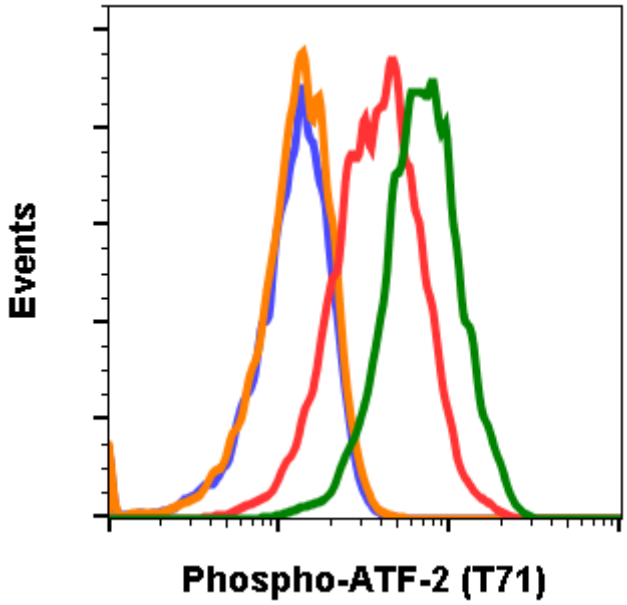
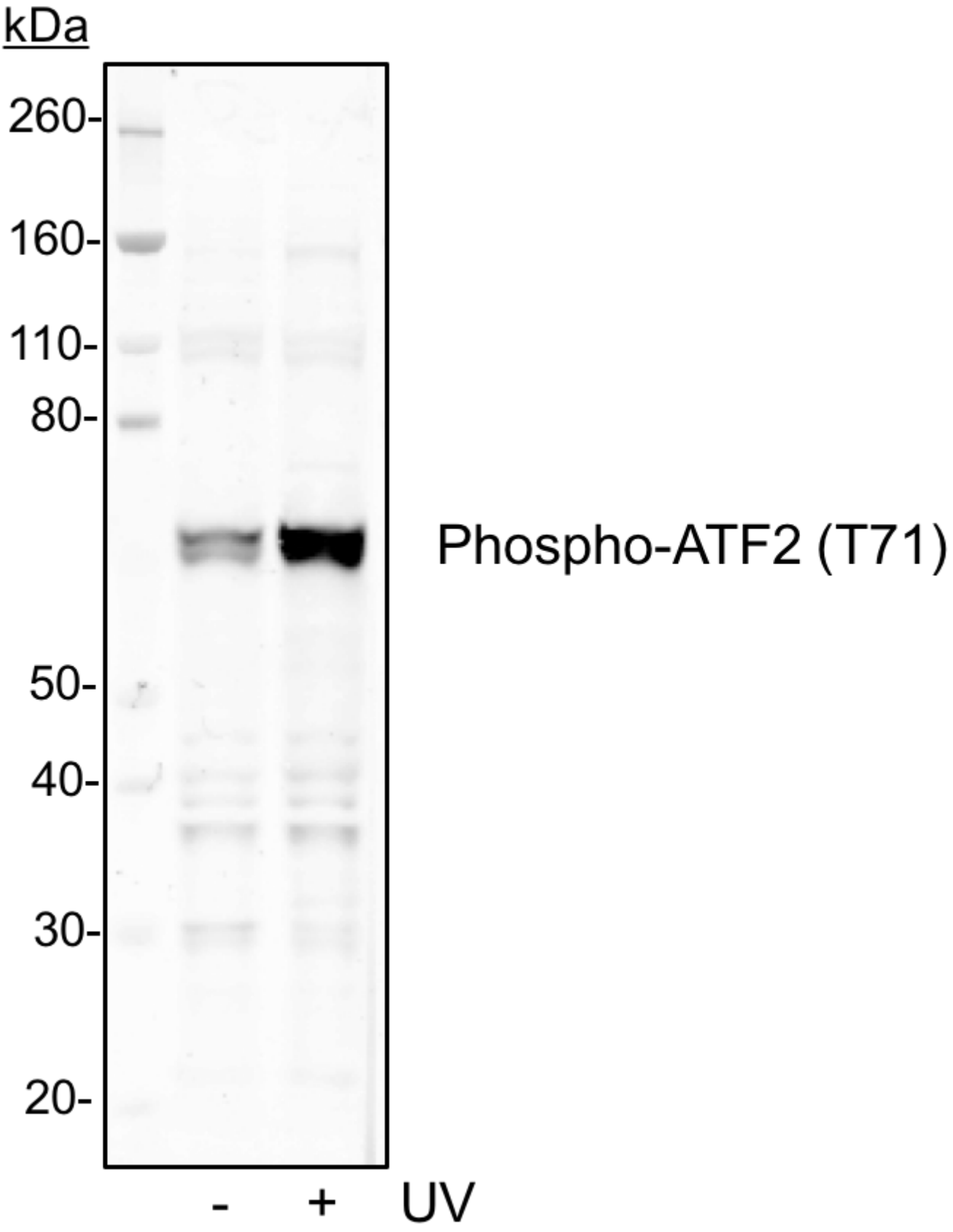
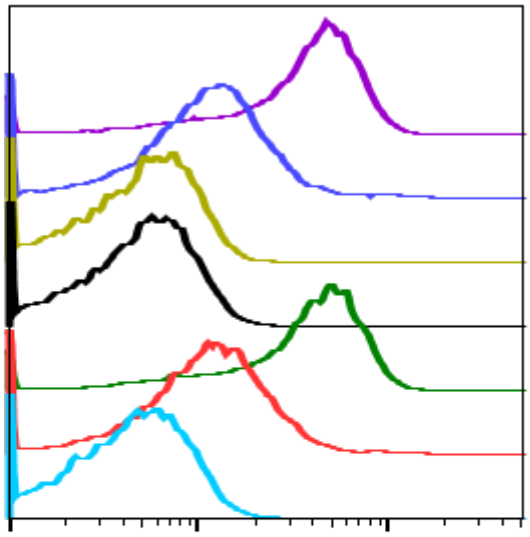
Lau E, et al., (2012) Cell 48:543–555.
Bhoumik A, et al., (2005) Mol Cell 18:577–587.



Flow cytometric analysis of NIH3T3 cells secondary antibody only negative control (blue) or 0.1 µg/mL of isotype control Cat. #2141 (orange) or untreated (red) or treated with UV and PMA (green) using Phospho-ATF-2 (Thr71) antibody ATF2T71-G3 at 0.1µg/mL. Cat #2056.

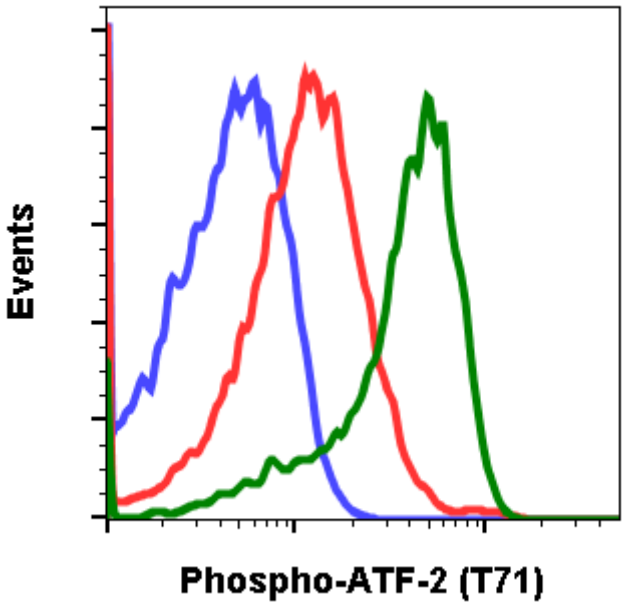


Western blot analysis of 293T cell extract untreated or treated with UV using 0.1 µg/mL Phospho-ATF-2 (Thr71) antibody ATF2T71-G3. Cat. #2056.

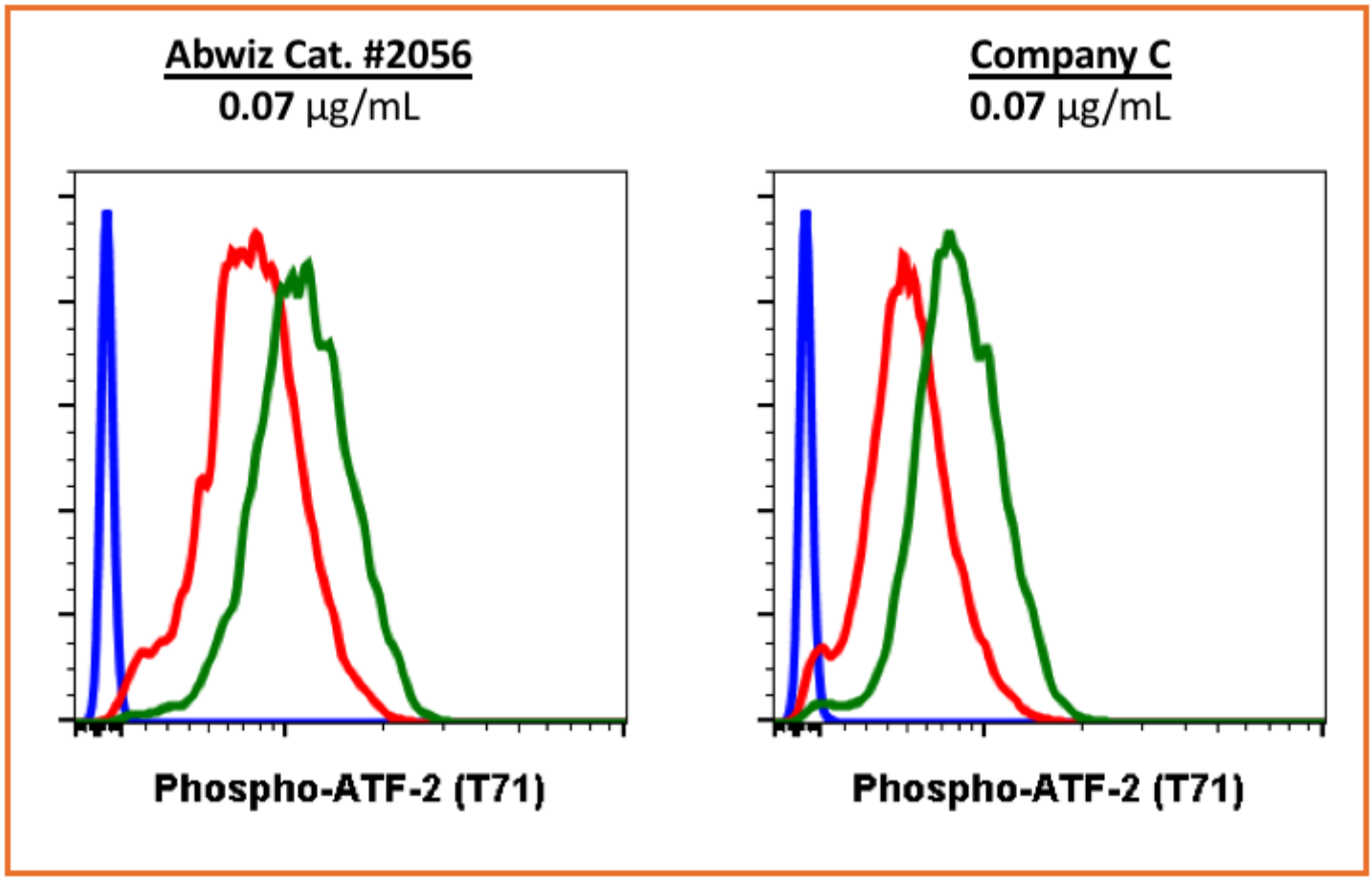


	SampleID	Median : BL1-A
☐	Aniso G3 N	4025
☐	Ctrl G3 N	1080
☐	Aniso G3 P	440
☐	Ctrl G3 P	401
☐	Aniso G3	4025
☐	Ctrl G3	1098
☐	Ctrl 2' only	319

Peptide blocking flow cytometric analysis of Jurkat cells secondary antibody only negative control (light blue) or untreated (red) or anisomycin-treated (green) or untreated and blocked with phospho-peptide (black) or anisomycin and blocked with phospho peptide (gold) or untreated and blocked with non-phospho peptide (dark blue) or anisomycin and blocked with non-phospho peptide (purple) Phospho-ATF-2 (Thr71) antibody ATF2T71-G3 at 0.1µg/mL. Cat. #2056.



Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with anisomycin (green) using Phospho-ATF-2 (Thr71) antibody ATF2T71-G3 at 0.1µg/mL. Cat #2056.



Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with anisomycin (green) using Phospho-ATF-2 (T71) antibody ATF2T71-G3 (Abwiz Cat. #2056) or Company C antibody at 0.07 µg/mL (manufacturer's recommended concentration).