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## Product Datasheet

# Anti-ATF2 (Thr52)

Pooled Serum

### Overview

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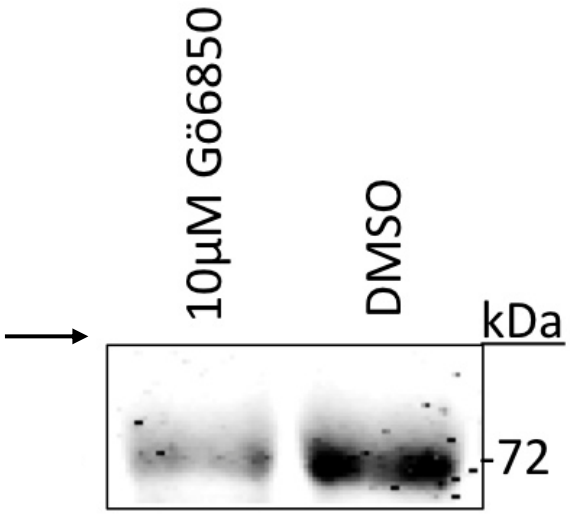
|---|---|
| **Catalog #** | p115-52 |
| **Host Species** | Rabbit Polyclonal |
| **Format** | Antigen Affinity Purified from Pooled Serum |
| **Applications** | WB 1:250 |
| **Species Tested** | Human, Mouse |
| **Immunogen** | Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr52 of human ATF2, conjugated to keyhole limpet hemocyanin (KLH). |
| **Molecular Weight** | 74 kDa |
| **Cite this Antibody** | PhosphoSolutions Cat# p115-52, RRID:AB_2492045 |

### Images




Western blot of UACC903 melanoma cell line lysate (DMSO) showing specific immunolabeling of the ~ 72 kDa ATF2 protein phosphorylated at Thr$^{52}$. Immunolabeling is reduced by treatment of the lysate with the PKC catalytic inhibitor Gö6850. Image courtesy of Eric Lau and Ze'ev Ronai.

## Details

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| **Target Description** | The transcription factor ATF2 is a member of the ATF/CREB family of leucine zipper proteins. In response to stress stimuli, it activates a variety of gene targets that are involved in oncogenesis, and has been correlated with maintenance of a cancer cell phenotype (Vlahopoulos et al., 2008). Inhibiting ATF2 impedes melanoma development and elicits tumor suppressor function (Bhoumik et al., 2008). To act as a tumor suppressor, ATF2 must localize at the mitochondria, and phosphorylation at Thr-52 by PKCε regulates this translocation (Lau et al., 2012). |
| **Specificity** | Specific for endogenous levels of the ~72 kDa ATF2 protein phosphorylated at Thr52. Immunolabeling of the ATF2 band is reduced by treatment of the cells with the PKC catalytic inhibitor Gö6850. |
| **Production/Purification** | Prepared from rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns. |
| **Quality Control** | Western blots performed on each lot. |
| **Buffer** | 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol. |
| **Storage** | Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. |
| **Stability** | After date of receipt, stable for at least 1 year at -20°C. |

## Significant Citations


Kumar, V., Weng, Y.C., Wu, Y.C., Huang, Y.T. and Chou, W.H., 2018. PKCε phosphorylation regulates the mitochondrial translocation of ATF2 in ischemia-induced neurodegeneration. *BMC neuroscience*, *19*(1), p.76.

Lau, E., Sedy, J., Sander, C., Shaw, M.A., Feng, Y., Scortegagna, M., Claps, G., Robinson, S., Cheng, P., Srivas, R. and Soonthornvacharin, S., 2015. Transcriptional repression of IFNβ1 by ATF2 confers melanoma resistance to therapy. *Oncogene*, 34(46), p.5739-48.

Varsano, T., Lau, E., Feng, Y., Garrido, M., Milan, L., Heynen-Genel, S., Hassig, C.A. & Ze'ev, A. R. (2013). Inhibition of melanoma growth by small molecules that promote the mitochondrial localization of ATF2. *Clinical Cancer Research*, *19*(10), 2710-2722.

Lau, E., Kluger, H., Varsano, T., Lee, K., Scheffler, I., Rimm, D.L., Ideker, T. and Ze'ev, A.R., 2012. PKCε promotes oncogenic functions of ATF2 in the nucleus while blocking its apoptotic function at mitochondria. *Cell*, 148(3), pp.543-555.


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