#2119 Store at –20°C

BRF1/2 Antibody

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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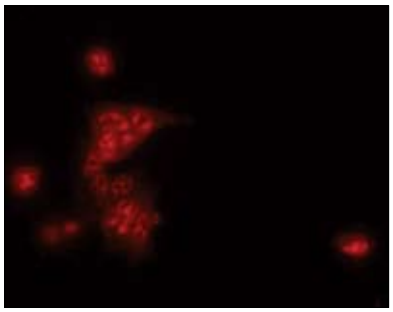
Entrez-Gene ID #677
Swiss-Prot Acc. #Q07352

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC, F Endogenous	H, M, R, Mk, (C, B)	40-50 kDa BRF1 62 kDa BRF2	Rabbit**

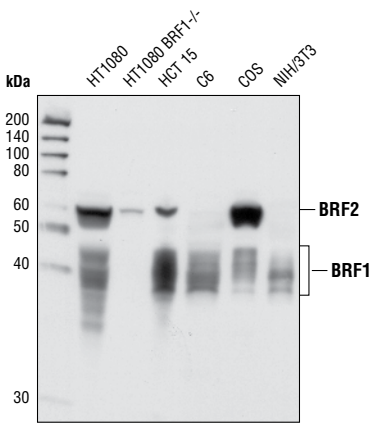
Background: Butyrate response factor 1 (BRF1; also known as EGF response factor 1 [ERF1], TIS11B, ZFP36L1) and butyrate response factor 2 (BRF2; also known as EGF response factor 2 [ERF2], TIS11D, ZFP36L2) both belong to the TIS11 family of CCCH zinc-finger proteins (1). This family of proteins, which also includes tristetraprolin (TTP), bind to AU-rich elements (ARE) found in the 3'-untranslated regions of mRNAs and promote de-adenylation and rapid degradation by the exosome (2,3). These proteins play a critical role in cell growth control by regulating the mRNA turnover of multiple cytokines, growth factors and cell cycle regulators, including GM-CSF, TNFα, IL-2, IL-3 and IL-6 (4,5). Deregulated ARE-mRNA stability can contribute to both inflammation and oncogenic transformation (6–8). Insulin-induced stabilization of ARE-containing transcripts is mediated by Akt/PKB phosphorylation of BRF1 at Ser92, which results in binding by 14-3-3 protein and inactivation of BRF1 (9).

Specificity/Sensitivity: This antibody detects endogenous levels of total BRF1 and BRF2 proteins.

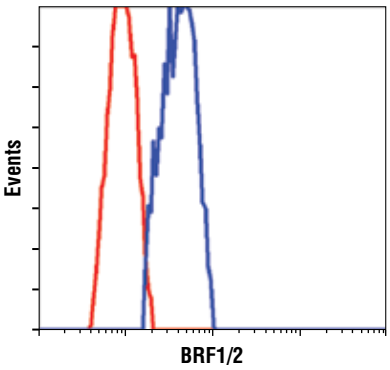
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy terminus of human BRF1 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Immunofluorescent analysis of DLD-1 cells, using BRF1/2 Antibody.



Western blot analysis of cell lysates from HT1080, HT1080 BRF1$^{-/-}$ HCT15, C6, COS and NIH/3T3 cells, using BRF1/2 Antibody.



Flow cytometric analysis of A549 cells, using BRF1/2 Antibody (blue) compared to a nonspecific negative control antibody (red).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:25
Flow Cytometry	1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Varnum, B.C. et al. (1991) *Mol. Cell. Biol.* 11, 1754–1758.
(2) Stoecklin, G. et al. (2002) *EMBO J.* 21, 4709–4718.
(3) Lykke-Andersen, J. and Wagner, E. (2005) *Genes Dev.* 19, 351–361.
(4) Stoecklin, G. et al. (2000) *Mol. Cell. Biol.* 20, 3753–3763.
(5) Stoecklin, G. et al. (2001) *RNA* 7, 1578–1588.
(6) Schuler, G.D. and Cole, M.D. (1988) *Cell* 55, 1115–1122.
(7) Nair, A.P. et al. (1994) *Nature* 369, 239–242.
(8) Carballo, E. et al. (1998) *Science* 281, 1001–1005.
(9) Schmidlin, M. et al. (2004) *EMBO J.* 23, 4760–4769.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.