#12390 Store at -20°C

Phospho-IRF-7 (Ser477) (D7E1W) Rabbit mAb

☑ 100 µl
(10 western blots)

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Entrez-Gene ID #3665
UniProt Acc. #Q92985

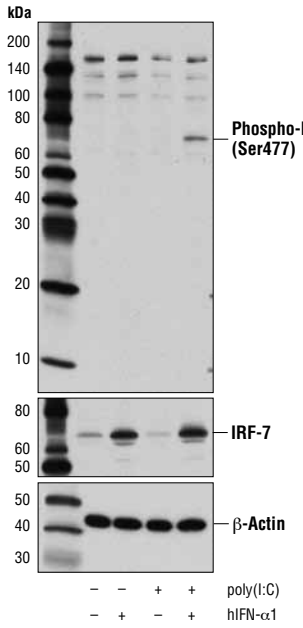
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, (Mk)	65 kDa	Rabbit IgG**

Background: Interferon regulatory factors (IRFs) comprise a family of transcription factors that function within the Jak/Stat pathway to regulate interferon (IFN) and IFN-inducible gene expression in response to viral infection (1). IRFs play an important role in pathogen defense, autoimmunity, lymphocyte development, cell growth, and susceptibility to transformation. The IRF family includes nine members: IRF-1, IRF-2, ISGF3γ/p48, IRF-3, IRF-4 (Pip/LSIRF/ICSAT), IRF-5, IRF-6, IRF-7, and IRF-8/ICSBP. All IRF proteins share homology in their amino-terminal DNA-binding domains. IRF family members regulate transcription through interactions with proteins that share similar DNA-binding motifs, such as IFN-stimulated response elements (ISRE), IFN consensus sequences (ICS), and IFN regulatory elements (IRF-E) (2).

IRF-7, which is functionally similar to IRF-3, is preferentially expressed in lymphoid cells and induced by virus, LPS, and IFN-α (3-5). IRF-7 plays an essential role in the induction of type I interferon in response to viral infection (6-8). Like IRF-3, IRF-7 is regulated at multiple serine phosphorylation sites near its carboxyl terminus, which are required for nuclear translocation, DNA binding, and transcriptional activity (9-11).

Specificity/Sensitivity: Phospho-IRF-7 (Ser477) (D7E1W) Rabbit mAb recognizes endogenous levels of IRF-7 protein only when phosphorylated at Ser477. This antibody can also detect IRF-7 when dually phosphorylated at Ser477 and Ser479. This antibody may cross-react with proteins of unknown origin between 100 and 150 kDa.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser477 of human IRF-7 protein.



Western blot analysis of extracts from HT-29 cells, untreated or treated with Human Interferon-α1 (hIFN-α1) #8927 (10 ng/ml, overnight) followed by transfection with poly(I:C) (2.5 µg/ml, 7 hr), as indicated, using Phospho-IRF-7 (Ser477) (D7E1W) Rabbit mAb (upper), IRF-7 Antibody #4920 (middle), or β-Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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

For product 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) Taniguchi, T. et al. (2001) *Annu Rev Immunol* 19, 623-55.
(2) Honda, K. and Taniguchi, T. (2006) *Nat Rev Immunol* 6, 644-58.
(3) Au, W.C. et al. (1998) *J Biol Chem* 273, 29210-7.
(4) Wathelet, M.G. et al. (1998) *Mol Cell* 1, 507-18.
(5) Marié, I. et al. (1998) *EMBO J* 17, 6660-9.
(6) Sato, M. et al. (2000) *Immunity* 13, 539-48.
(7) Honda, K. et al. (2005) *Nature* 434, 772-7.
(8) Colina, R. et al. (2008) *Nature* 452, 323-8.
(9) Lin, R. et al. (2000) *J Biol Chem* 275, 34320-7.
(10) Yang, H. et al. (2003) *J Biol Chem* 278, 15495-504.
(11) Caillaud, A. et al. (2005) *J Biol Chem* 280, 17671-7.

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.

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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.