

Store at  
-20°C

# IFNGR1 (E444) Antibody



#10405

New 12/18

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orders@cellsignal.comEntrez-Gene ID #3459  
UniProt ID #P15260**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 45-90 kDa	Source Rabbit*
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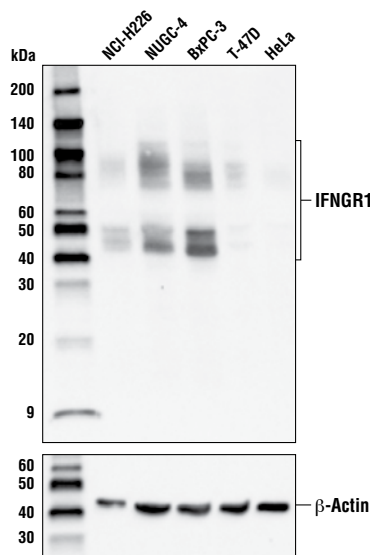
**Background:** IFN- $\gamma$  plays key roles in both the innate and adaptive immune response. IFN- $\gamma$  activates the cytotoxic activity of innate immune cells, such as macrophages and NK cells (1,2). IFN- $\gamma$  production by NK cells and antigen presenting cells (APCs) promotes the cell mediated adaptive immunity by inducing IFN- $\gamma$  production by T lymphocytes, increasing class I and class II MHC expression, and enhancing peptide antigen presentation (1). The anti-viral activity of IFN- $\gamma$  is due to its induction of PKR and other regulatory proteins. Binding of IFN- $\gamma$  to the IFNGR1/IFNGR2 complex promotes dimerization of the receptor complexes to form the (IFNGR1/IFNGR2)<sub>2</sub>-IFN- $\gamma$  dimer. Binding induces a conformational change in receptor intracellular domains and signaling involves Jak1, Jak2, and Stat1 (3). The critical role of IFN- $\gamma$  in amplification of immune surveillance and function is supported by increased susceptibility to pathogen infection by IFN- $\gamma$  or IFNGR knockout mice and in humans with inactivating mutations in IFNGR1 or IFNGR2. IFN- $\gamma$  also appears to have a role in atherosclerosis (4).

**Background References:**

- (1) Schroder, K. et al. (2004) *J Leukoc Biol* 75, 163-89.
- (2) Martinez, F.O. et al. (2009) *Annu Rev Immunol* 27, 451-83.
- (3) Kotenko, S.V. et al. (1995) *J Biol Chem* 270, 20915-21.
- (4) McLaren, J.E. and Ramji, D.P. (2009) *Cytokine Growth Factor Rev* 20, 125-35.

**Specificity/Sensitivity:** IFNGR1 (E444) Antibody recognizes endogenous levels of total IFNGR1 protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu444 of human IFNGR1 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines with IFNGR1 (E444) Antibody (upper) or  $\beta$ -Actin (D6A8) Rabbit mAb #8457 (lower).

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/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
Immunoprecipitation	1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com).

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

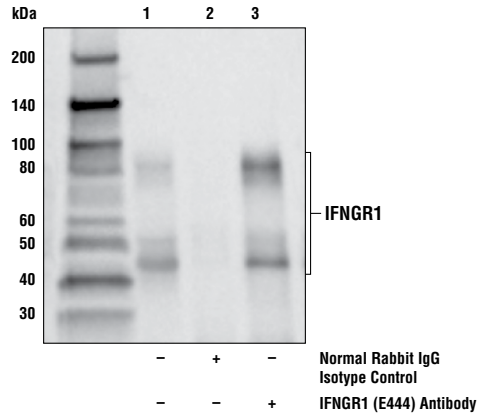
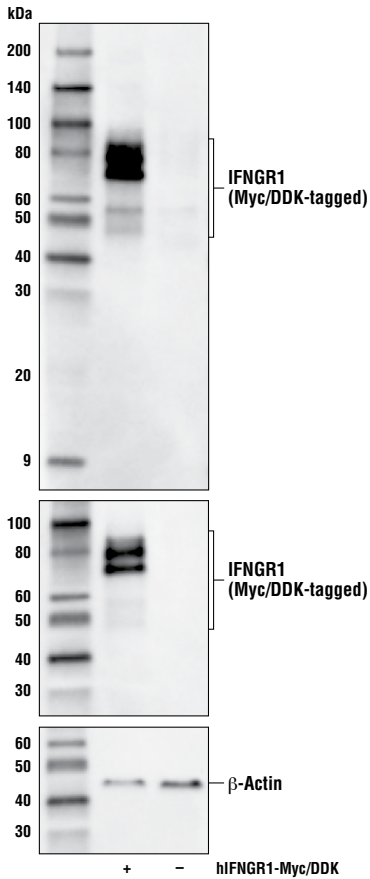
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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken 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.



Immunoprecipitation of IFNGR1 from NCI-H226 cell extracts. Lane 1 is 10% input, lane 2 is Normal Rabbit IgG #2729, and lane 3 is IFNGR1 (E444) Antibody. Western blot analysis was performed using IFNGR1 (E444) Antibody. Mouse Anti-rabbit IgG (Conformation Specific) (L27A9) mAb #3678 was used for detection.

Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with a construct expressing Myc/DDK-tagged full-length human IFNGR1 protein (hIFNGR1-Myc/DDK; +), using IFNGR1 (E444) Antibody (upper), Myc-Tag (71D10) Rabbit mAb #2278 (middle), and  $\beta$ -Actin (D6A8) Rabbit mAb #8457 (lower).

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