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#97450**IFN- $\beta$ 1 (D2J1D) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	M	Endogenous	24, 26	Rabbit IgG	#P01575	15977

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

For a carrier free (BSA and azide free) version of this product see product #15454.

**Specificity/Sensitivity**

IFN- $\beta$ 1 (D2J1D) Rabbit mAb recognizes endogenous levels of total IFN- $\beta$ 1 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with recombinant mouse IFN- $\beta$ 1 protein.

**Background**

The type I interferon (IFN) family includes IFN- $\beta$ 1 and IFN- $\alpha$ 1 through IFN- $\alpha$ 13 in humans and IFN- $\alpha$ 1 through IFN- $\alpha$ 14 in mice. Type I IFN is produced following detection of pathogen-associated molecular patterns (PAMPs) and is important for induction of antiviral genes, activation of dendritic cells, and initiation of adaptive immunity (1, 2). Type I IFNs signal through the IFN alpha receptor (IFNAR), which is a heterodimer composed of IFNAR1 and IFNAR2. Activation of IFNAR leads to formation of the nuclear complex IFN-stimulated gene factor 3 (ISGF3), which consists of STAT1, STAT2, and IRF-9 (3, 4). ISGF3 binds to IFN-stimulated response elements (ISREs) to initiate transcription of interferon-stimulated genes (3).

**Background References**

1. Paludan, S.R. and Bowie, A.G. (2013) *Immunity* 38, 870-80.
2. Ivashkiv, L.B. and Donlin, L.T. (2014) *Nat Rev Immunol* 14, 36-49.
3. Levy, D.E. et al. (1989) *Genes Dev* 3, 1362-71.
4. Qureshi, S.A. et al. (1995) *Proc Natl Acad Sci U S A* 92, 3829-33.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**M:** Mouse

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