

# IFN- $\alpha$ (6B18) Mouse mAb

✓ 100  $\mu$ l  
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Recombinant	H	19 kDa	Mouse IgG1 and $\kappa$ **

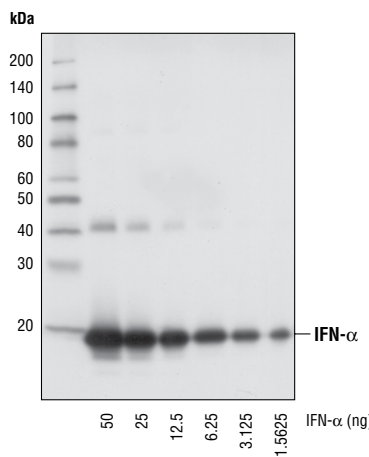
**Background:** Interferons (IFNs) appear both locally and systematically early after viral infection and participate in limiting the spread of infection; they also affect cell differentiation, growth, surface antigen expression and immunoregulation (1). There are three naturally occurring interferons:  $\alpha$ ,  $\beta$  and  $\gamma$ . IFN- $\alpha$  is derived from lymphoblastic tissue and has a number of therapeutic applications in the treatment of various human cancers and diseases of viral origin. Recombinant IFN- $\alpha$  from both natural and synthetic genes binds to a common cell surface receptor and induces antiviral activity in a variety of cell lines. When binding to discrete cell surface receptors on target cells, IFN- $\alpha$  induces rapid changes in Jak/Stat phosphorylation, which initiates the Jak/Stat signaling pathway (2). IFN- $\alpha$  signaling also involves production of DAG without an increased intracellular free calcium concentration and the subsequent activation of calcium-independent isoforms of PKC ( $\beta$  and  $\epsilon$ ) (3). All IFN- $\alpha$  signaling pathways lead to final alterations of gene expression, which mediate their pleiotropic biologic activities.

**Specificity/Sensitivity:** IFN- $\alpha$  (6B18) Mouse mAb detects recombinant human interferon- $\alpha$  protein. This antibody does not cross-react with human interferon- $\beta$  and - $\gamma$ .

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with purified natural human interferon- $\alpha$  proteins.

**Background References:**

- (1) Stiehm, E.R. et al. (1982) *Ann. Intern. Med.* 96, 80–93.
- (2) Pellegrini, S. et al. (1989) *Mol. Cell. Biol.* 9, 4605–4614.
- (3) Pfeffer, L.M. and Colamonici, O.R. (1991) *Pharmacol. Ther.* 52, 149–157.



Western blot analysis of natural human interferon- $\alpha$  proteins at various concentrations, using IFN- $\alpha$  (6B18) Mouse mAb.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/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-mouse secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 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.