Revision 1

IFN-α (6B18) Mouse mAb

#3110 Store at -20C

Cell Signaling TECHNOLOGY®

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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	H	Recombinant protein	19	Mouse IgG1	#P01562	3439

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

Specificity/Sensitivity

IFN-α (6B18) Mouse mAb detects recombinant human interferon-α protein. This antibody does not cross-react with human interferon-β and -γ.

Source / Purification

Monoclonal antibody is produced by immunizing animals with purified natural human interferon-α proteins.

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: α, β, and γ. IFN-α 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-α 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-α induces rapid changes in Jak/Stat phosphorylation, which initiates the Jak/Stat signaling pathway (2). IFN-α signaling also involves production of DAG without an increased intracellular free calcium concentration and the subsequent activation of calcium-independent isoforms of PKC (β and ε) (3). All IFN-α signaling pathways lead to final alterations of gene expression, which mediate their pleiotropic biologic activities.

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, 4605-12.
3. Pfeffer, L.M. and Colamonici, O.R. (1991) *Pharmacol Ther* 52, 149-57.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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Limited Uses

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