



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## Mouse Anti-Chicken Interferon alpha

### With HRP-conjugated Secondary Antibody

**Catalog No.**  
DS-MB-01578

**Target Species**  
Chicken

**Isotype**  
IgG1

### **Preparation**

**Immunogen:** Recombinant chicken Interferon alpha.

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

### **Specificity**

DS-MB-01578 recognizes chicken Interferon alpha (chIFN-alpha).

The classification of mammalian cytokines with antiviral activity, is well documented as being either Type I Interferon (IFN $\alpha$ ) or Type II Interferon (IFN $\beta$ ). This is not the case for avian IFNs however, even though IFN was first detected in the chicken.

A growing number of functional studies indicate similarities between chicken IFN and mammalian IFN $\alpha$ , revealing the conservation of cysteine residues and the existence of around ten closely related intron-less IFN alpha genes. Further research has shown that chIFN-alpha genes are strongly expressed following viral infection of monocyte-derived macrophage and embryo fibroblasts and that recombinant chicken IFN acts as a potent antiviral agent.

DS-MB-01578 does not cross react with IFN beta or IFN gamma and does not neutralize chIFN-alpha.

### **Formulation**

**Product Type:** Monoclonal Antibody

**Product Form:** Purified IgG - liquid

**Buffer Solution:** Phosphate buffered saline

**Preservative Stabilizers:** 0.09% Sodium Azide (NaN $_3$ )

**Approx. Protein Concentrations:** IgG concentration 0.5 mg/ml

**The products are furnished for LABORATORY RESEARCH USE ONLY.**  
**Not for diagnostic or therapeutic use.**



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### Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life:** 18 months from date of dispatch.

### Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry			•	
ELISA	•			
Western Blotting (1)	•			

**Note:** Other applications are not tested yet. Optimal dilutions should be determined.

(1) This product detects a band of approximately 19 kDa.

### Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5,000-1:10,000

### References

1. Staeheli, P. *et al.* (2001) Cytokines of Birds: Conserved functions – A largely different look. *J. Interferon Cytokine Res.* 21: 993-1010.
2. Schwarz, H. *et al.* (2004) Synthesis of IFN-beta by virus-infected chicken embryo cells demonstrated with specific antisera and a new bioassay. *J. Interferon Cytokine Res.* 24: 179-184.
3. Sick, C *et al.* (1996) A family of genes coding for two serologically distinct chicken interferons. *J. Biol. Chem.* 271(13): 7635-7639.
4. Sarmiento, L. *et al.* (2008) Differential host gene expression in cells infected with highly pathogenic H5N1 avian influenza viruses. *Vet Immunol Immunopathol.* 125: 291-302.

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