

Datasheet: PBP007A

Description:	RECOMBINANT BOVINE INTERFERON GAMMA
Name:	IFN GAMMA
Other names:	INTERFERON GAMMA
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	25 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			
Functional Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Bovine
Product Form	Purified recombinant protein - lyophilized
Reconstitution	Reconstitute with 100 µl sterile PBS containing 0.1% carrier protein Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.
Preparation	Recombinant protein expressed in <i>Pichia pastoris</i> and purified by ion-exchange chromatography
Source	<i>Pichia pastoris</i>
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	10% Trehalose

**External Database
Links**

UniProt:

[P07353](#) [Related reagents](#)

Entrez Gene:

[281237](#) IFNG [Related reagents](#)

Product Information

Recombinant Bovine interferon gamma, (IFN γ), known previously as macrophage activating factor, belongs to the type II interferon family and is produced by T lymphocytes and NK cells.

Native bovine interferon gamma is a 143 amino acid cytokine with potent activating, anti-viral and anti-proliferative properties. It is produced as a pro-peptide with an additional 23 amino acid N-terminal signal peptide sequence having a molecular weight of ~20 kDa.

IFN γ is predominantly secreted by activated T lymphocytes in response to specific mitogens as a result of infection and has numerous immunological regulatory functions. Properties include macrophage activation, upregulation of MHC class I and II molecules on various cells and induction of cytotoxicity.

**Protein Molecular
Weight**

16.9 kDa

Purity

>95% by SDS PAGE analysis

ELISA

This reagent has been used as a standard in a sandwich ELISA assay in conjunction with clone CC330 ([MCA2112](#)) and clone CC302 ([MCA1783B](#))

References

1. Floss, M.M. *et al.* (2010) Expression and Immunogenicity of the Mycobacterial Ag85B/ESAT-6 Antigens Produced in Transgenic Plants by Elastin-Like Peptide Fusion Strategy. [J Biomed Biotechnol. 2010: 274346.](#)
2. Korzekwa, A.J. *et al.* (2011) Characterization of bovine immortalized luteal endothelial cells: action of cytokines on production and content of arachidonic acid metabolites. [Reprod Biol Endocrinol. 9: 27.](#)
3. Pujol, J. *et al.* (2015) Generation of a soluble recombinant trimeric form of bovine CD40L and its potential use as a vaccine adjuvant in cows. [Vet Immunol Immunopathol. 168 \(1-2\): 1-13.](#)
4. Soria, I. *et al.* (2018) Immune Response and Partial Protection against Heterologous Foot-and-Mouth Disease Virus Induced by Dendrimer Peptides in Cattle. [J Immunol Res. 2018: 3497401.](#)
5. Hecker, Y.P. *et al.* (2019) Immune response to *Neospora caninum* live tachyzoites in prepubertal female calves. [Parasitol Res. 118 \(10\): 2945-55.](#)
6. Rodrigues, V. *et al.* (2017) Development of a bead-based multiplexed assay for simultaneous quantification of five bovine cytokines by flow cytometry. [Cytometry A. 91 \(9\): 901-907.](#)
7. Fiorani, F. *et al.* (2019) Delayed type hypersensitivity induced by intradermal inoculation of a *Neospora caninum*. tachyzoite antigen in previously exposed cattle. [Vet Immunol Immunopathol. 207: 31-5.](#)

8. Soria, I. *et al.* (2017) Dendrimeric peptides can confer protection against foot-and-mouth disease virus in cattle. [PLoS One. 12 \(9\): e0185184.](#)
9. Alejandra, C.K. *et al.* (2021) TLR activation, immune response and viral protection elicited in cattle by a commercial vaccine against Bovine Herpesvirus-1 [Virology. Dec 03 \[Epub ahead of print\].](#)
10. Bouroutzika, E. *et al.* (2023) Melatonin Administration to Pregnant Ewes for Coccidiosis Control in Their Offspring. [Animals \(Basel\). 13 \(14\): 2381.](#)

Storage Prior to reconstitution store at +4°C.
After reconstitution store at -20°C.
Storage in frost-free freezers is not recommended. This product should be stored undiluted.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10591 available at: <https://www.bio-rad-antibodies.com/SDS/PBP007A>
10591

Regulatory For research purposes only

Related Products

Recommended Useful Reagents

[MOUSE ANTI BOVINE INTERFERON GAMMA:Biotin \(MCA1783B\)](#)

[MOUSE ANTI BOVINE INTERFERON GAMMA \(MCA2112\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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