

Datasheet: PBP006

Description:	RECOMBINANT BOVINE INTERLEUKIN-4
Name:	IL-4
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	20 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	<p>Reconstitute with 0.5 ml distilled water. 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.</p> <p>Further dilutions should be made in a buffer containing carrier protein.</p>
Preparation	Recombinant protein expressed in <i>Pichia pastoris</i>
Source	<i>Pichia pastoris</i>
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Approx. Protein	Total protein concentration 0.04 mg/ml after reconstitution

Concentrations

External Database

Links

UniProt:

[P30367](#)

[Related reagents](#)

Entrez Gene:

[280824](#)

IL4

[Related reagents](#)

Product Information

Interleukin-4 (IL-4) is produced by a range of bovine cells, including T and B lymphocytes, monocytes and macrophages, and plays an important role in the immune response.

Protein Molecular Weight

12.6 kDa

Purity

>95% by SDS PAGE analysis

ELISA

PBP006 has been used as a standard in a sandwich ELISA assay with [MCA2371](#) as the capture antibody and [MCA2372B](#) for detection.

References

1. Pirson, C. *et al.* (2012) Differential effects of *Mycobacterium bovis* - derived polar and apolar lipid fractions on bovine innate immune cells. [Vet Res. 43: 54.](#)
2. 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 \(9\): 901-7.](#)
3. Stabel, J.R. *et al.* (2021) Comparative cellular immune responses in calves after infection with *Mycobacterium avium* subsp. *paratuberculosis*, *M. avium* subsp. *avium*, *M. kansasii* and *M. bovis*. [Vet Immunol Immunopathol. 237: 110268.](#)
4. Barone, L.J. *et al.* (2023) Enhanced infectivity of bovine viral diarrhoea virus (BVDV) in arginase-producing bovine monocyte-derived macrophages. [Virulence. Article: 2283899.](#)
5. Stabel, J.R. *et al.* (2022) B cell phenotypes and maturation states in cows naturally infected with *Mycobacterium avium* subsp. *Paratuberculosis*. [PLoS One. 17 \(12\): e0278313.](#)

Storage

This product is shipped at ambient temperature.
Prior to reconstitution store at +4°C.
Following reconstitution store at -70°C.
Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10302 available at:
<https://www.bio-rad-antibodies.com/SDS/PBP006>
10302

Regulatory

For research purposes only

Related Products

Recommended Useful Reagents

[MOUSE ANTI BOVINE INTERLEUKIN-4 \(MCA2371\)](#)

[MOUSE ANTI BOVINE INTERLEUKIN-4:Biotin \(MCA2372B\)](#)

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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

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