Datasheet: MCA1659

BATCH NUMBER 173282

Description:	MOUSE ANTI SHEEP INTERLEUKIN-6
Specificity:	IL-6
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4B6
Isotype:	IgG1
Quantity:	0.25 mg

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
Flow Cytometry (1)	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			5ug/ml (as a coating antibody)
Immunoprecipitation			▪	
Western Blotting	▪			

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.

(1) **Membrane permeabilization is required for this application. The use of Leucoperm (Product Code BUF09) is recommended for this purpose.**

Target Species

Sheep

Species Cross Reactivity

Reacts with: Monkey

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% sodium azide (NaN_3)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant ovine IL-6.
External Database Links	**UniProt:** P29455 Related reagents **Entrez Gene:** 443406 IL6 Related reagents
RRID	AB_322149
Specificity	**Mouse anti Sheep Interleukin-6 antibody, clone 4B6** recognizes ovine interleukin-6 (IL-6) and has also been reported to recognise recombinant human IL-6 and bovine IL-6 transfected cells. Mouse anti Sheep Interleukin-6 antibody, clone 4B6 does not cross react with ovine IL-1 beta, IL-8, MCP-1 or TNF alpha.
Flow Cytometry	Use 10µl of the suggested working dilution to label $1x10^6$ cells in 100µl
ELISA	Mouse anti Sheep interleukin-6 antibody, clone 4B6 may be used in combination with AHP424 in a sandwich ELISA assays for ovine IL-6.

References

1. McWaters, P. *et al.* (2000) Characterisation of monoclonal antibodies to ovine interleukin-6 and the development of a sensitive capture ELISA. Vet Immunol Immunopathol. 73 (2): 155-65.
2. Shashikant, B.N. *et al.* (2005) Dose response to rhCC10-augmented surfactant therapy in a lamb model of infant respiratory distress syndrome: physiological, inflammatory, and kinetic profiles. J Appl Physiol. 99: 2204-11.
3. Kabaroff, L. *et al.* (2006) Changes in ovine maternal temperature, and serum cortisol and interleukin-6 concentrations after challenge with *Escherichia coli* lipopolysaccharide during pregnancy and early lactation. J Anim Sci. 84: 2083-8.
4. Su, F. *et al* (2007) Beneficial effects of ethyl pyruvate in septic shock from peritonitis. Arch Surg.142: 166-71.
5. Wang, Z. *et al.* (2008) Acute hypercapnia improves indices of tissue oxygenation more than dobutamine in septic shock. Am J Respir Crit Care Med. 177: 178-83.
6. Redondo, E. *et al.* (2014) Induction of interleukin-8 and interleukin-12 in neonatal ovine lung following experimental inoculation of bovine respiratory syncytial virus. J Comp Pathol. 150 (4): 434-48.
7. Xu, A. *et al.* (2015) The Ovine Fetal and Placental Inflammatory Response to Umbilical

Cord Occlusions With Worsening Acidosis. Reprod Sci. 22 (11): 1409-20.
8. Karisnan, K .*et al.* (2015) Interleukin-1 Receptor Antagonist Protects against Lipopolysaccharide Induced Diaphragm Weakness in Preterm Lambs. PLoS One. 10 (4): e0124390.
9. Dooley, L.M. *et al.* (2015) Effect of mesenchymal precursor cells on the systemic inflammatory response and endothelial dysfunction in an ovine model of collagen-induced arthritis. PLoS One. 10 (5): e0124144.
10. Herry, C.L. *et al.* (2016) Temporal Patterns in Sheep Fetal Heart Rate Variability Correlate to Systemic Cytokine Inflammatory Response: A Methodological Exploration of Monitoring Potential Using Complex Signals Bioinformatics. PLoS One. 11 (4): e0153515.
11. Ciliberti, M.G. *et al.* (2017) Peripheral blood mononuclear cell proliferation and cytokine production in sheep as affected by cortisol level and duration of stress. J Dairy Sci. 100 (1): 750-756.
12. Westover, A. *et al.* (2017) Effect of Human Amnion Epithelial Cells on the Acute Inflammatory Response in Fetal Sheep. Front Physiol. 8: 871.
13. Castel, A. *et al.* (2021) Recording and manipulation of vagus nerve electrical activity in chronically instrumented unanesthetized near term fetal sheep. J Neurosci Methods. 360: 109257.
14. Damiano, S. *et al.* (2022) Red orange and lemon extract preserve from oxidative stress, DNA damage and inflammatory status in lambs It J anim Sci 21 (1): 934-42.
15. Ciliberti, M.G. *et al.* (2022) Green extraction of bioactive compounds from wine lees and their bio-responses on immune modulation using in vitro sheep model. J Dairy Sci. 105 (5): 4335-53.
16. Ferreras-Colino, E. *et al.* (2023) Oral immunization with heat-inactivated Mycobacterium bovis reduces local parasite dissemination and hepatic granuloma development in mice infected with Leishmania amazonensis. Res Vet Sci. 162: 104963.
17. Cao, M. *et al.* (2024) The Vagus Nerve Regulates Immunometabolic Homeostasis in the Ovine Fetus near Term: The Impact on Terminal Ileum. Biology (Basel). 13 (1): 38.
18. Ciliberti, M.G. *et al.* (2024) Role of hazelnut skin supplementation on plasma antioxidant status and cytokine profile in growing lambs. Front Vet Sci. 11: 1340141.
19. Alonso-Alconada, D. *et al.* (2020) Cannabinoid-mediated Modulation of Oxidative Stress and Early Inflammatory Response after Hypoxia-Ischemia. Int J Mol Sci. 21 (4): 1283.

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1659
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	FITC

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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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Printed on 19 Mar 2026