

Datasheet: MCA1659

BATCH NUMBER 160994

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 antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1) Membrane permeabilization is required for this application. Bio-Rad recommend the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.

Target Species	Sheep
Species Cross Reactivity	<p>Reacts with: Monkey</p> <p>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.</p>
Product Form	Purified IgG - liquid

Preparation	Purified IgG prepared by affinity chromatography on Protein G
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	<p>UniProt: P29455 Related reagents</p> <p>Entrez Gene: 443406 IL6 Related reagents</p>
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 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
ELISA	MCA1659 may also be used in combination with AHP424 in a sandwich ELISA assays for ovine IL-6.
References	<ol style="list-style-type: none"> 1. McWaters, P. <i>et al.</i> (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. Wang, Z. <i>et al.</i> (2008) Acute hypercapnia improves indices of tissue oxygenation more than dobutamine in septic shock. Am J Respir Crit Care Med. 177: 178-83. 3. Su, F. <i>et al.</i> (2007) Beneficial effects of ethyl pyruvate in septic shock from peritonitis. Arch Surg.142: 166-71. 4. Kabaroff, L. <i>et al.</i> (2006) Changes in ovine maternal temperature, and serum cortisol and interleukin-6 concentrations after challenge with <i>Escherichia coli</i> lipopolysaccharide during pregnancy and early lactation. J Anim Sci. 84: 2083-8. 5. Shashikant, B.N. <i>et al.</i> (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. 6. Redondo, E. <i>et al.</i> (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. Karisnan, K. <i>et al.</i> (2015) Interleukin-1 Receptor Antagonist Protects against Lipopolysaccharide Induced Diaphragm Weakness in Preterm Lambs. PLoS One. 10 (4):

[e0124390](#).

8. 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](#).
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. 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. Mar 17 \[Epub ahead of print\]](#).
15. Cao, M. *et al.* (2022) The vagus nerve regulates immunometabolic homeostasis in the ovine fetus near term: impact on terminal ileum [asXiv 2203.14967](#)
16. 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](#).

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>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

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

'M389318:210806'

Printed on 11 Apr 2024

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