

Datasheet: MCA1659

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	<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 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	<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. 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: 2204-11.3. 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: 2083-8.4. Su, F. <i>et al.</i> (2007) Beneficial effects of ethyl pyruvate in septic shock from peritonitis. Arch Surg. 142: 166-71.5. 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: 178-83.6. 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. Xu, A. <i>et al.</i> (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	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1659</p> <p>10040</p>
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 \(MCA928\)](#)

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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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