

# Datasheet: MCA1660 BATCH NUMBER 151836

Description:	MOUSE ANTI SHEEP INTERLEUKIN-8
Specificity:	IL-8
Other names:	CXCL8
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	8M6
Isotype:	IgG2a
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	•			1/10
Immunohistology - Frozen				
Immunohistology - Paraffin				
ELISA	•			5ug/ml
Immunoprecipitation				
Western Blotting	•			
Functional Assays (2)	•			

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. Bio-Rad recommend the use of Leucoperm&trade: (Product Code <u>BUF09A</u>) for this purpose.

(2)Removal of the preservative is recommended prior to use in functional assays - Bio-Rad recommend the use of a <u>Slide-A-Lyser® dialysis cassette</u> for this purpose.

Target	Species

Sheep

# Species Cross Reactivity

Reacts with: Dog, Rabbit, Bovine, Pig, Mustelid, Ferret, Mink, Cat

**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			
Buffer Solution	Phosphate buffered saline			
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )			
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml			
Immunogen	Recombinant ovine IL-8.			
External Database Links	UniProt: P36925 Related reagents  Entrez Gene: 443418 IL8 Related reagents			
Synonyms	CXCL8			
RRID	AB_322152			
Specificity	Mouse anti Ovine Interleukin-8 antibody, clone 8M6 recognizes ovine interleukin-8 (IL-8), also known as C-X-C motif chemokine 8. IL-8 is a 79 amino acid ~9-11 kDa chemoattractant for neutrophils, basophils and T-cells. IL-8 is produced by several cell types including neutrophils, monocytes and macrophages in response to inflammatory stimulation. Mouse anti ovine Interleukin-8 antibody, clone 8M6 shows no cross-reactivity with ovine IL-1 beta, IL-6, MCP-1 or TNF alpha.			
	Responses to infectious stimuli may vary among ovine species, the response to <i>Mannheimia haemolytica</i> , a causative agent of pneumonia, peritonitis and gangrenous mastitis in ovids, is exaggerated in Bighorn sheep ( <i>Ovis canadensis</i> ) compared to domestic sheep ( <i>Ovis aries</i> ) with significantly elevated IL-8 levels in response to infection ( <u>Herndon et al. 2010</u> ).			
	Mouse anti ovine interleukin-8 antibody, clone 8M6 has been utilized to identify cells and cell types expressing IL-8 in inflamed porcine tissue ( <u>Laursen et al. 2014</u> ) showing here also that neutrophils are the predominant cell type expressing IL-8 whilst epithelial and endothelial cells in the vicinity of inflammatory lesions also express the cytokine. Clone 8M6 neutralizes the bioactivity of ovine IL-8.  Mouse anti Ovine Interleukin-8 antibody, clone 8M6 has been used in conjunction with Rabbit anti Sheep Interleukin-8 antibody ( <u>AHP425</u> ) for the development of a sensitive ELISA to measure IL-8 concentrations in bovine samples ( <u>Cronin et al. 2015</u> ).			
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.			

Mouse anti Sheep Interleukin-8 antibody, clone 8M6 may be used in combination with AHP425 in sandwich ELISA assays for ovine IL-8.

#### References

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- 2. Pedersen, L.G. *et al.* (2002) Identification of monoclonal antibodies that cross-react with cytokines from different animal species. <u>Vet Immunol Immunopathol.</u> 88 (3-4): 111-22.
- 3. Aasted, B. *et al.* (2002) Cytokine profiles in peripheral blood mononuclear cells and lymph node cells from piglets infected in utero with porcine reproductive and respiratory syndrome virus. Clin Diagn Lab Immunol. 9 (6): 1229-34.
- 4. Herndon, C.N. *et al.* (2010) Differential expression of interleukin-8 by polymorphonuclear leukocytes of two closely related species, *Ovis canadensis* and *Ovis aries*, in response to *Mannheimia haemolytica* infection. <u>Infect Immun. 78: 3578-84.</u>
- 5. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. <u>Vet Immunoglobulins</u>, 132:109-15.
- 6. Zelnickova, P. *et al.* (2008) Age-dependent changes of proinflammatory cytokine production by porcine peripheral blood phagocytes. <u>Vet Immunol Immunopathol. 124:</u> 367-78.
- 7. Bonnefont, C.M. *et al.* (2012) Genetic susceptibility to *S. aureus* mastitis in sheep: differential expression of mammary epithelial cells in response to live bacteria or supernatant. <u>Physiol Genomics</u>. 44: 403-16.
- 8. Jensen, P.V. *et al.* (2003) Cytokine profiles in adult mink infected with Aleutian mink disease parvovirus. <u>J Virol. 77: 7444-51.</u>
- 9. Singh, B. *et al.* (2004) Depletion of pulmonary intravascular macrophages inhibits acute lung inflammation. Am J Physiol Lung Cell Mol Physiol. 286: L363-72.
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- 11. Laursen, H. *et al.* (2014) Immunohistochemical detection of interleukin-8 in inflamed porcine tissues. <u>Vet Immunol Immunopathol.</u> 159: 97-102.
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- 13. Cronin, J.G. *et al.* (2015) Enzyme linked immunosorbent assay for quantification of bovine interleukin-8 to study infection and immunity in the female genital tract. <u>Am J Reprod Immunol.</u> 73 (4): 372-82.
- 14. Doull, L. *et al.* (2015) Late production of CXCL8 in ruminant oro-nasal turbinate cells in response to *Chlamydia abortus* infection. <u>Vet Immunol Immunopathol. 168 (1-2): 97-102.</u>
- 15. Rainard, P. *et al.* (2008) The chemokine CXCL3 is responsible for the constitutive chemotactic activity of bovine milk for neutrophils. <u>Mol Immunol. 45 (15): 4020-7.</u>
- 16. Stinson LF *et al.* (2014) Effects of cytokine-suppressive anti-inflammatory drugs on inflammatory activation in *ex vivo* human and ovine fetal membranes. Reproduction. 147 (3): 313-20.
- 17. Tahoun, A. *et al.* (2015) Functional analysis of bovine TLR5 and association with IgA responses of cattle following systemic immunisation with H7 flagella. <u>Vet Res. 46: 9.</u>
  18. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. <u>Vet Immunol Immunopathol. 132 (2-4):</u> 109-15.

19. Erneholm, K. et al. (2016) Genital tract lesions in sexually mature Göttingen minipigs during the initial stages of experimental vaginal infection with Chlamydia trachomatis serovar D. BMC Vet Res. 12 (1): 200.

20. Melville, J.M. et al. (2017) Human amnion epithelial cells modulate the inflammatory response to ventilation in preterm lambs. PLoS One. 12 (3): e0173572.

**Storage** 

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch **Health And Safety** Material Safety Datasheet documentation #10040 available at: Information https://www.bio-rad-antibodies.com/SDS/MCA1660 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

**FITC** Rabbit Anti Mouse IgG (STAR9...)

Rabbit Anti Mouse IgG (STAR13...) **HRP** 

## **Recommended Negative Controls**

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

Email: antibody\_sales\_us@bio-rad.com

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North & South Tel: +1 800 265 7376 Fax: +1 919 878 3751 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 'M365588:200529'

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