OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

SM482 Monoclonal Antibody to Interleukin-8 / IL8 - Purified

Alternate names: CXCL8, Emoctakin, GCP1, Granulocyte chemotactic protein 1, MDNCF, MONAP, Monocyte-derived neutrophil chemotactic factor, Monocyte-derived neutrophil-activating peptide, NAP1, Neutrophil-activating protein 1, Protein 3-10C, T-cell chemotactic factor

Quantity: 0.25 mg

Concentration: 1.0 mg/ml

Background: Interleukin 8, IL8 is a member of the CXC chemokine family. This family of small basic heparan-binding proteins are proinflammatory and primarily mediate the activation and migration of neutrophils into tissue from peripheral blood.
This chemokine is one of the major mediators of the inflammatory response and is secreted by several cell types in response to an inflammatory stimulus. It functions as a chemoattractant, and is also a potent angiogenic factor. IL8 attracts neutrophils, basophils, and T-cells, but not monocytes.
Cystic fibrosis (CF) is characterized by severe lung inflammation. The inflammatory process is believed to be caused by massive overproduction of the proinflammatory protein IL8, and the high levels of IL8 in the CF lung are therefore believed to be the central mechanism behind CF lung pathophysiology.

Uniprot ID: P79255

NCBI: NP_776350.1

GeneID: 280828

Host / Isotype: Mouse / IgG2a

Recommended Isotype Controls: AM03096PU-N

Clone: 8M6

Immunogen: Recombinant Ovine IL-8

Format: **State:** Liquid purified IgG fraction.
Buffer System: PBS containing 0.09% Sodium Azide

Applications: **ELISA:** 5 µg/ml. The antibody may be used in combination with SP1251 in Sandwich ELISA assays for Ovine IL-8.
Western Blot.
Flow Cytometry: 1/10. Membrane permeabilization is required for this application.
Functional Assays: Removal of Sodium Azide is recommended prior to use in functional assays.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody recognizes Interleukin-8 and shows no cross-reactivity with Ovine IL-1 beta, IL-6, MCP-1 or TNF alpha.
This Interleukin 8 antibody neutralises the bioactivity of Ovine IL-8.
Species: Sheep, Dog, Rabbit, Bovine, Pig, Mustelid, Ferret, Mink, Cat.
Other species not tested.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Caswell JL, Middleton DM, Sorden SD, Gordon JR. Expression of the neutrophil chemoattractant interleukin-8 in the lesions of bovine pneumonic pasteurellosis. Vet Pathol. 1998 Mar;35(2):124-31. PubMed PMID: 9539366.
2. Pedersen, L.G. et al. (2002) Identification of monoclonal antibodies that cross react with cytokines from different animal species. Vet. Immunol. Immunopathol. 88 (3-4): 111 - 122.
3. Aasted B, Bach P, Nielsen J, Lind P. 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. 2002 Nov;9(6):1229-34. PubMed PMID: 12414754.
4. Herndon CN, Foreyt WJ, Srikumaran S. Differential expression of interleukin-8 by polymorphonuclear leukocytes of two closely related species, Ovis canadensis and Ovis aries, in response to Mannheimia haemolytica infection. Infect Immun. 2010 Aug;78(8):3578-84. doi: 10.1128/IAI.00327-10. Epub 2010 Jun 1. PubMed PMID: 20515932.
5. Martel CJ, Aasted B. Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. Vet Immunol Immunopathol. 2009 Dec 15;132(2-4):109-15. doi: 10.1016/j.vetimm.2009.05.011. Epub 2009 May 20. PubMed PMID: 19505731.
6. Zelnickova P, Leva L, Stepanova H, Kovaru F, Faldyna M. Age-dependent changes of proinflammatory cytokine production by porcine peripheral blood phagocytes. Vet Immunol Immunopathol. 2008 Aug 15;124(3-4):367-78. doi: 10.1016/j.vetimm.2008.04.016. Epub 2008 Apr 30. PubMed PMID: 18534689.
7. Bonnefont CM, Rainard P, Cunha P, Gilbert FB, Toufeer M, Aurel MR, et al. Genetic susceptibility to S. aureus mastitis in sheep: differential expression of mammary epithelial cells in response to live bacteria or supernatant. Physiol Genomics. 2012 Apr 2;44(7):403-16. doi: 10.1152/physiolgenomics.00155.2011. Epub 2012 Feb 14. PubMed PMID: 22337903.
8. Jensen PV, Castelruiz Y, Aasted B. Cytokine profiles in adult mink infected with Aleutian mink disease parvovirus. J Virol. 2003 Jul;77(13):7444-51. PubMed PMID: 12805443.
9. Singh B, Pearce JW, Gamage LN, Janardhan K, Caldwell S. Depletion of pulmonary intravascular macrophages inhibits acute lung inflammation. Am J Physiol Lung Cell Mol Physiol. 2004 Feb;286(2):L363-72. Epub 2003 Oct 17. PubMed PMID: 14565942.
10. Redondo E, Gázquez A, Vadillo S, García A, Franco A, Masot AJ. Induction of interleukin-8 and interleukin-12 in neonatal ovine lung following experimental inoculation of bovine respiratory syncytial virus. J Comp Pathol. 2014 May;150(4):434-48. doi: 10.1016/j.jcpa.2013.08.002. Epub 2013 Oct 26. PubMed PMID: 24854063.

11. Laursen H, Jensen HE, Leifsson PS, Jensen LK, Christiansen JG, Trebbien R, et al. Immunohistochemical detection of interleukin-8 in inflamed porcine tissues. Vet Immunol Immunopathol. 2014 May 15;159(1-2):97-102. doi: 10.1016/j.vetimm.2014.01.013. Epub 2014 Feb 6. PubMed PMID: 24698104.
12. Boulanger D, Bureau F, Mélotte D, Mainil J, Lekeux P. Increased nuclear factor kappaB activity in milk cells of mastitis-affected cows. J Dairy Sci. 2003 Apr;86(4):1259-67. PubMed PMID: 12741551.
13. Cronin JG, Hodges R, Pedersen S, Sheldon IM. Enzyme linked immunosorbent assay for quantification of bovine interleukin-8 to study infection and immunity in the female genital tract. Am J Reprod Immunol. 2015 Apr;73(4):372-82. doi: 10.1111/aji.12344. Epub 2014 Nov 27. PubMed PMID: 25427847.