Leinco Technologies, Inc.
excellence in early discovery research™

Human IL-8/CXCL8 Antibody

Purified No Carrier Protein

Monoclonal Antibody

Product Information

Product No.:	I-176
Clone:	6217
RRID:	AB_2830570
Isotype:	Mouse IgG1
Storage:	-20°C to -70°C

Product Description

Specificity:
Mouse Anti-Human Interleukin-8 (IL-8) recognizes Human IL-8. This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype.

Background:
IL-8 is a chemokine produced by macrophages and other cell types such as epithelial cells. It is also synthesized by endothelial cells, which store IL-8 in their storage vesicles. IL-8 is one of the major mediators of the inflammatory response. This chemokine is secreted by several cell types. It functions as a chemoattractant, and is also a potent angiogenic factor. Gene of IL-8 is believed to play a role in the pathogenesis of bronchiolitis. While neutrophil granulocytes are the primary target cells of IL-8 there is a relative wide range of cells (endothelial cells, macrophages, mast cells, keratinocytes) responding to this chemokine, too. When first encountering an antigen, the primary cells to encounter it are the macrophages that phagocytose the particle. Upon processing, they release chemokines to signal other immune cells to come in to the site of inflammation. IL-8 is one such chemokine. It serves as a chemical signal that attracts neutrophils at the site of inflammation, and therefore is also known as Neutrophil Chemotactic Factor. Interleukin-8 is often associated with inflammation. As an example, it has been cited as a proinflammatory mediator in psoriasis.[1]

Known Reactivity Species:
Human

Format:
Purified No Carrier Protein

Immunogen:
Purified Recombinant IL-8/CXCL8 (Accession # P10145)

Formulation

This monoclonal antibody has been 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 - 7.4 containing 5.0% w/v trehalose with no calcium, magnesium or preservatives present.

Storage and Stability

The lyophilized antibody can be stored desiccated at -20°C to -70°C for up to twelve months. The reconstituted antibody can be stored for at least four weeks at 2-8°C. For long-term storage of the reconstituted antibody, aseptically aliquot into working volumes and store at -20°C to -70°C in a manual defrost freezer. Avoid repeated freeze thaw cycles. No detectable loss of activity was observed after six months.

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Applications

Applications and Recommended Usage (Quality Tested By Leinco):
ELISA Sandwich: This antibody is useful as the capture antibody in a sandwich ELISA. The suggested coating concentration is 2-8 µg/ml. A suitable detection antibody is PN:I-260 at a concentration of approximately 0.1-0.4 µg/ml. A suggested standard for this assay is PN:I-190.
Flow Cytometry: It is recommended to use the indirect method for signal enhancement when enumerating cells expressing IL-8. A suggested method would be to stain cells expressing IL-8 with 0.25 µg/10^6 cells.
Western Blotting: To detect Human IL-8 this monoclonal antibody can be used at a concentration of 1-2 µg/ml. This monoclonal antibody should be used in conjunction with compatible second-step reagents such as PN:M114 and a chromogenic substrate such as PN:T343. The detection limit for Human IL-8 is 5 ng/lane under either reducing or non-reducing conditions. The sensitivity of detection may increase up to 50 fold when a chemiluminescent substrate is used. A suitable Western blotting control is PN:I-190.

Other Applications Reported in Literature:
Neutralization: This antibody is useful for neutralization of Human IL-8 bioactivity. The antibody dose required to neutralize 50% (ND_{50}) of the biological activity of Human IL-8 (at 20 ng/ml) is 0.08 - 0.4 µg/ml.
Immunocytochemistry: Suitable for use at concentration of 8-25 µg/mL.
CyTOF-ready: Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.

Country of Origin

USA

References

1. Haraldsen, G. *et al.* (1998) *J Exp Med.* 188: 1751