abcam

ab282000

Anti-IL-8 antibody [O-IL8-15] - Mouse IgG2a (Chimeric)

Recombinant

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Clone number	O-IL8-15
Purification technique	Affinity purification Protein A
Concentration	1.145 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CXCL8

Function	Chemotactic factor that mediates inflammatory response by attracting neutrophils, basophils, and T-cells to clear pathogens and protect the host from infection (PubMed:18692776, PubMed:7636208). Also plays an important role in neutrophil activation (PubMed:2145175, PubMed:9623510). Released in response to an inflammatory stimulus, exerts its effect by binding to the G-protein-coupled receptors CXCR1 and CXCR2, primarily found in neutrophils, monocytes and endothelial cells (PubMed:1840701, PubMed:1891716). G-protein heterotrimer (alpha, beta, gamma subunits) constitutively binds to CXCR1/CXCR2 receptor and activation by IL8 leads to beta and gamma subunits release from Galpha (GNAI2 in neutrophils) and activation of several downstream signaling pathways including PI3K and MAPK pathways (PubMed:11971003, PubMed:8662698).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

ab282000 is a mouse monoclonal chimeric antibody.
What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity

- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Collaborations
This antibody was developed by the Structural Genomics Consortium and manufactured by Abcam.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	IL-8 also known as CXCL8 is a cytokine with a molecular weight of approximately 8 kDa. It belongs to the CXC chemokine family and plays a role in the recruitment of neutrophils to sites of inflammation. Cells like monocytes macrophages and endothelial cells express IL-8 after activation by pro-inflammatory signals. The protein exhibits high expression in cells associated with the immune response and inflammation serving as a signaling molecule between these cell types.
Biological function summary	IL-8 functions as a chemoattractant for neutrophils and lymphocytes facilitating their movement towards the site of infection or injury. It does not form part of a larger protein complex but operates individually to enhance immune cell migration. IL-8 possesses unique binding motifs allowing it to interact with specific receptors namely CXCR1 and CXCR2 on target cells. This binding triggers cellular responses leading to effective immune surveillance and response to inflammatory stimuli.
Pathways	IL-8 operates within important inflammatory and immune response pathways. It forms a part of the NF-κB signaling cascade which activates in response to stress signals promoting the expression of other inflammatory mediators. Additionally it engages in the mitogen-activated protein kinase (MAPK) pathway influencing cellular responses such as proliferation and differentiation. The interaction of IL-8 with these pathways highlights its role in modulating immune responses and highlights its interaction with other proteins such as TNF-α and IL-1β.
Associated diseases and disorders	IL-8 shows a strong association with conditions like rheumatoid arthritis and chronic obstructive pulmonary disease (COPD). It acts as a biomarker for these diseases often correlating with disease severity and inflammation levels. In rheumatoid arthritis IL-8 contributes to joint inflammation and degradation while in COPD it enhances airway inflammation and tissue damage. The cytokine's involvement in these diseases connects it with other inflammatory mediators such as MMPs and leukotrienes which collectively exacerbate disease pathology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

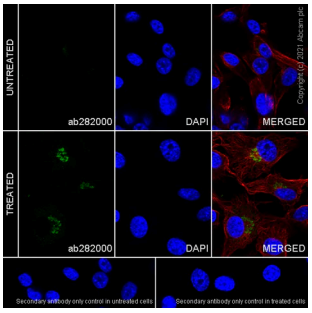
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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3 product images

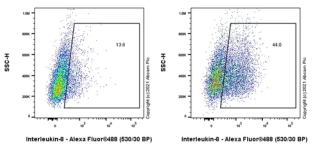


Immunocytochemistry/ Immunofluorescence - Anti-IL-8 antibody [O-IL8-15] - Mouse IgG2a (Chimeric) (ab282000)

IL-8 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-IL-8 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized U-87 MG cells labelling IL-8 with ab282000 at 1/50 (22.9 ug/ml) dilution, followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in U-87 MG cells treated with thapsigargin (1uM) for 24 hours. ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

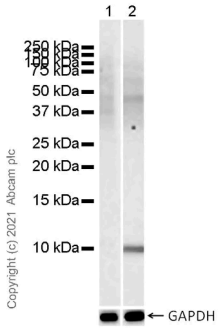
Secondary antibody only control: Secondary antibody is ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-IL-8 antibody [O-IL8-15] - Mouse IgG2a (Chimeric) (ab282000)

IL-8 Flow Cytometry (Intracellular) staining using mouse Anti-IL-8 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized U-87 MG (human glioblastoma-astrocytoma epithelial cell) treated with 1uM thapsigargin for 24h (Right) / Untreated control (Left) cells labelling IL-8 with ab282000 at 1/1000 dilution (0.1ug). A Goat anti mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-IL-8 antibody [O-IL8-15] - Mouse IgG2a (Chimeric) (ab282000)

IL-8 Western blot staining using mouse Anti-IL-8 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST
This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 3 minutes

All lanes:
Western blot - Anti-IL-8 antibody [O-IL8-15] - Mouse IgG2a (Chimeric) (ab282000) at 1/1000 dilution

Lane 1:
Untreated U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate at 10 µg

Lane 2:
U-87 MG treated with 1uM thapsigargin for 24 hours, whole cell lysate at 10 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 11 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.