

Human CXCL9/MIG Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF392

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DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human CXCL9/MIG in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 10% cross-reactivity with recombinant mouse CXCL9 (non-reducing conditions) is observed.	
Source	Polyclonal Goat IgG	
Purification	Antigen Affinity-purified	
Immunogen	<i>E. coli-</i> derived recombinant human CXCL9/MIG Thr23-Thr125 Accession # Q07325	
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.	
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either Iyophilized or as a 0.2 μm filtered solution in PBS.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.			
	Recommended Concentration	Sample	
Western Blot	0.1 µg/mL	Recombinant Human CXCL9/MIG (Catalog # 392- MG)	
Immunocytochemistry	5-15 µg/mL	See Below	
Neutralization	, ,	Measured by its ability to neutralize CXCL9/MIG-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with mouse CXCR3. The Neutralization Dose (ND ₅₀) is typically 5-40 μg/mL in the presence of 1 μg/mL Recombinant Human CXCL9/MIG.	



Chemotaxis Induced by CXCL9/MIG and Neutralization by Human CXCL9/ MIG Antibody. Recombinant Human CXCL9/ MIG (Catalog # 392-MG) chemo-attracts the BaF3 mouse pro-B cell line transfected with mouse CXCR3 in a dosedependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Human CXCL9/ MIG (1 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CXCL9/MIG Antigen Affinity-purified Polyclonal Antibody (Catalog # AF392). The ND₅₀ is typically 5-40 µg/mL.

Immunocytochemistry



CXCL9/MIG in THP-1 Human Cell Line. CXCL9/MIG was detected in immersion fixed THP-1 human acute monocytic leukemia cell line stimulated with IFN-gamma using Goat Anti-Human CXCL9/MIG Antigen Affinitypurified Polyclonal Antibody (Catalog # AF392) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the Northern-Lights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # Catalog # NL001) and counter-stained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	
Stability & Storage	 Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution. 	

Rev. 12/8/2021 Page 1 of 2



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BACKGROUND

CXCL9, a member of the α subfamily of chemokines that lack the ELR domain, was initially identified as a lymphokine-activated gene in mouse macrophages. Human CXCL9 was subsequently cloned using mouse MIG cDNA as a probe. The CXCL9 gene is induced in macrophages and in primary glial cells of the central nervous system specifically in response to IFN-γ. CXCL9 has been shown to be a chemoattractant for activated T-lymphocytes and TIL but not for neutrophils or monocytes. The human CXCL9 cDNA encodes a 125 amino acid residue precursor protein with a 22 amino acid residue signal peptide that is cleaved to yield a 103 amino acid residue mature protein. CXCL9 has an extended carboxy-terminus containing greater than 50% basic amino acid residues and is larger than most other chemokines. The carboxy-terminal residues of CXCL9 are prone to proteolytic cleavage resulting in size heterogeneity of natural and recombinant CXCL9. CXCL9 with large carboxy-terminal deletions have been shown to have diminished activity in the calcium flux assay. A chemokine receptor (CXCR3) specific for CXCL9 and IP-10 has been cloned and shown to be highly expressed in IL-2-activated T-lymphocytes. The *E. coli*-expressed CXCL9 preparations produced at R&D Systems have been shown to contain greater than 80% full length CXCL9.

References:

- 1. Loetscher, M. et al. (1996) J. Exp. Med. 184:963.
- 2. Liao, F. et al. (1995) J. Exp. Med. 182:1301.
- 3. Vanguri, P. (1995) J. Neuroimmunol. 56:35.

Rev. 12/8/2021 Page 2 of 2



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