Human/Primate CXCL1/GROα/KC/CINC-1 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF275

DESCRIPTION

Species Reactivity	Human/Primate
Specificity	Detects human CXCL1/GROα/KC/CINC-1 in ELISAs and Western blots. In sandwich immunoassays, approximately 0.3% cross-reactivity with recombinant human (rh) GROγ is observed and less than 0.1% cross-reactivity with rhGROβ, rhENA-78, rhIL-8, rhMCP-1, rhMIP-1α, rhMIP-1β, rhNAP-2, rhRANTES, rmKC, rmMIP-1α, rmMIP-1β, rmMIP-2, and rrCINC-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human CXCL1/GROα (R&D Systems, Catalog # 275-GR) Ala35-Asn107 Accession # P09341
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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 CXCL1/GROα/KC/CINC-1 (Catalog # 275-GR)
Human/Primate CXCL1/GROα Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human/Primate CXCL1/GROα/KC/CINC-1 Antibody (Catalog # MAB275)
ELISA Capture	2-8 µg/mL	Human/Primate CXCL1/GROα/KC/CINC-1 Antibody (Catalog # MAB275R)
ELISA Detection	0.1-0.4 µg/mL	Human/Primate CXCL1/GROα/KC/CINC-1 Biotinylated Antibody (Catalog # BAF275)
Standard		Recombinant Human CXCL1/GROα/KC/CINC-1 (Catalog # 275-GR)

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.
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.

BACKGROUND

The gene for CXCL1/GROα was initially discovered in hamster cells, using subtractive hybridization techniques, as a message that is over-expressed in tumorigenic cells and in normal cells during growth stimulation. The hamster cDNA was cloned and used as a probe for the subsequent cloning of the human GRO cDNA. Independently, a cDNA encoding a secreted protein with melanoma growth stimulating activity (MGSA) was also cloned from a human melanoma cell line and found to be identical to GRO. In addition to the initially cloned GRO gene, now designated CXCL1, two additional GRO genes, GROβ or MIP-2α and GROγ or MIP-2β, which shared 90% and 86% amino acid sequence homology, respectively, with CXCL1, have been identified. All three human GROs are members of the alpha (C-X-C) subfamily of chemokines.

The three GRO cDNAs encode 107 amino acid precursor proteins from which the N-terminal 34 amino acid residues are cleaved to generate the mature GROs. There are no potential N-linked glycosylation sites in the amino acid sequences. GRO expression is inducible by serum or PDGF and/or by a variety of inflammatory mediators, such as IL-1 and TNF, in monocytes, fibroblasts, melanocytes and epithelial cells. In certain tumor cell lines, GRO is expressed constitutively.

Similar to other alpha chemokines, the three GRO proteins are potent neutrophil attractants and activators. In addition, these chemokines are also active toward basophils. All three GROs can bind with high affinity to the IL-8 receptor type B. It remains to be seen if a unique GRO receptor(s) also exist. The rat homolog of human CXCL1, CINC, is much more active than human CXCL1 on rat neutrophils, suggesting that this cytokine may have selective species specificity.

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