

DESCRIPTION

Species Reactivity	Cotton Rat
Specificity	Detects cotton rat CXCL1/2/3/GRO in direct ELISAs and Western blots. In direct ELISAs, this antibody shows 5-20% cross-reactivity with recombinant rat CXCL1 and recombinant human CXCL2 and no cross-reactivity with recombinant cotton rat CXCL10, recombinant
Source	Monoclonal Mouse IgG ₁ Clone # 186413
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant cotton rat GRO Ala28-Lys100 Accession # AAL16934
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Cotton rat growth-regulated protein (GRO) is a member of the ELR⁺ CXC subfamily of chemokines (1). The cotton rat GRO cDNA encodes a 100 amino acid (aa) precursor protein with a 27 aa putative signal peptide and a 73 aa mature protein (2). Among the three human GRO proteins, mature cotton rat GRO is most closely related to CXCL1/GROα, sharing approximately 77% aa sequence identity (3). It also shares 75% and 70% aa sequence identity with mature human CXCL2/GROβ and CXCL3/GROγ, respectively (4). Compared with rat CXC chemokines, mature cotton rat shows 92%, 76%, and 76% aa sequence homology with rat KC/GRO/CINC-1, CINC-2, and CINC-3, respectively (5). Mature cotton rat CXCL1 also shares 74% sequence homology with mature cotton rat MIP-2 (6). Similarly to GRO proteins from other species, cotton rat CXCL1 is expected to be a potent neutrophil chemoattractant and activator. Cotton rat CXCL1 has been shown to bind and activate both mouse chemokine receptors CXCR1 and CXCR2 (7). Similarly to human CXCL1, the cotton rat CXCL1 concentration required to activate CXCR1 is at least an order of magnitude higher than that required to activate CXCR2 (7, 8). Based on studies on rodents, cotton rat CXCL1 is predicted to be produced by a wide variety of cell types including macrophages, endothelial cells, fibroblasts, astrocytes, neutrophils, keratinocytes, and intestinal epithelium (1, 9).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.