

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXCL14/BRAK in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human CXCL14/BRAK Leu23-Tyr99 Accession # O95715
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 CXCL14/BRAK (Catalog # 866-CX)

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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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

CXCL14/BRAK (breast and kidney-expressed chemokine), also named MIP-2 gamma, KEC (kidney-expressed chemokine), and BMAC (B cell and monocyte-activating chemokine), is a member of CXC chemokine superfamily (1-5). The deduced 99 amino acid (aa) residue precursor has a 22 aa putative signal peptide that is cleaved to produce the 77 aa mature protein. Mature human and mouse CXCL14 differ by only 2 residues. Human CXCL14 shares approximately 30% aa sequence identity with MIP-2α (GROβ) as well as MIP-2β (GROγ). The gene for CXCL14 has been mapped human chromosome 5q31. Unlike the MIP-2 chemokines, CXCL14 lacks the ELR domain preceding the CXC motif. CXCL14 transcripts are constitutively expressed at high levels in the basal layer of epidermal keratinocytes and dermal fibroblasts of skin tissues as well as lamina propria cells in normal intestinal tissues. CXCL14 has been shown to be a highly selective chemoattractant for monocytes that have been treated with prostaglandin E₂ or forskolin, agents that activate adenylate cyclase. CXCL14 has been proposed to be important for regulating the trafficking of macrophage precursor to regions in skin and mucosal tissues that support their development. Consistent with this hypothesis, macrophages were frequently found to co-localize with CXCL14-producing cells in the dermis and lamina propria.

References:

1. Hromas, R. *et al.* (1999) *Biochem. Biophys. Res. Commun.* **255**:703.
2. Cao, X. *et al.* (2000) *J. Immunol.* **165**:2588.
3. Kurth, I. *et al.* (2001) *J. Exp. Med.* **194**:855.
4. Frederick, M.J. *et al.* (2000) *Am. J. Pathol.* **156**:1937.
5. Sleeman, M.A. *et al.* (2000) *Int. Immunol.* **12**:677.