SANTA CRUZ BIOTECHNOLOGY, INC.

BRAK (P-21): sc-130979

BACKGROUND

Breast and kidney-expressed chemokine (BRAK) is a highly selective monocyte chemoattractant. The CXC chemokine BRAK, which is ubiquitously expressed in normal tissue extracts, is absent from many tumor cell lines *in vitro*. BRAK, also known as CXCL14, is involved in the generation of tissue macrophages by recruiting extravasated precursors to fibroblasts, which are known to secrete essential cytokines for macrophage development. The gene encoding BRAK is located on human chromosome 5q31.1.This gene belongs to the cytokine family which encodes secreted proteins involved in immunoregulatory and inflammatory processes. The BRAK protein is structurally related to the CXC (Cys-X-Cys) subfamily of cytokines characterized by two cysteines separated by a single amino acid.

REFERENCES

1. Hromas, R., et al. 1999. Cloning of BRAK, a novel divergent CXC chemokine preferentially expressed in normal versus malignant cells. Biochem. Biophys. Res. Commun. 255: 703-706.
2. Frederick, M.J., et al. 2000. *In vivo* expression of the novel CXC chemokine BRAK in normal and cancerous human tissue. Am. J. Pathol. 156: 1937-1950.
3. Kurth, I., et al. 2001. Monocyte selectivity and tissue localization suggests a role for breast and kidney-expressed chemokine (BRAK) in macrophage development. J. Exp. Med. 194: 855-861.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604186. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/.
5. Mitsui, G., et al. 2003. Kinetic profiles of sequential gene expressions for chemokines in mice with contact hypersensitivity. Immunol. Lett. 86: 191-197.
6. LocusLink Report (LocusID: 9547). http://www.ncbi.nlm.nih.gov/LocusLink/
7. SWISS-PROT/TrEMBL (O95715). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html.

CHROMOSOMAL LOCATION

Genetic locus: CXCL14 (human) mapping to 5q31.1; Cxcl14 (mouse) mapping to 13 B1.

SOURCE

BRAK (P-21) is a Protein A purified rabbit polyclonal antibody raised against synthetic BRAK peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

BRAK (P-21) is recommended for detection of BRAK of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BRAK siRNA (h): sc-43638, BRAK siRNA (m): sc-141736, BRAK shRNA Plasmid (h): sc-43638-SH, BRAK shRNA Plasmid (m): sc-141736-SH, BRAK shRNA (h) Lentiviral Particles: sc-43638-V and BRAK shRNA (m) Lentiviral Particles: sc-141736-V.

Molecular Weight (predicted) of BRAK: 13 kDa.

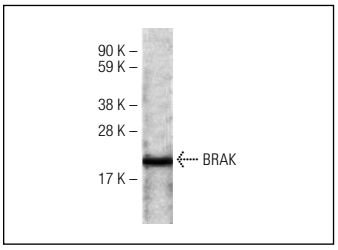
Molecular Weight (observed) of BRAK: 20 kDa.

Positive Controls: Human fetal skeletal muscle tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



BRAK (P-21): sc-130979. Western blot analysis of BRAK expression in human fetal skeletal muscle tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.