SANTA CRUZ BIOTECHNOLOGY, INC.

CKLF (C-12): sc-109508

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chemokines are members of a superfamily of small inducible, secreted, pro-inflammatory cytokines. CKLF (chemokine-like factor), also known as C32, is a 152 amino acid protein that likely plays a important role in inflammation and regeneration of skeletal muscle. There are four isoforms of CKLF that are produced as a result of alternative splicing events. All isoforms are expressed at high levels in adult pancreas, spleen, testis, ovary, lung, placenta and peripheral blood leukocytes, as well as fetal thymus, skeletal muscle, brain and heart. Isoform 1 (CKLF1) is secreted, while isoforms 2 and 4 (CKLF2 and CKLF4) are multi-pass membrane proteins. CKLF1 has a chemotactic response in rat neutrophils, lymphocytes, monocytes and arterial smooth muscle cells. CKLF1 stimulates proliferation of murine skeletal muscle cells and is partly inhibited by IL-10.

REFERENCES

1. Proost, P., et al. 1996. The role of chemokines in inflammation. Int. J. Clin. Lab. Res. 26: 211-223.
2. Martínez Martínez, C.M. and Hernández Pando, R. 1999. Chemokines, a new family of cytokines in inflammatory cell recruitment. Rev. Invest. Clin. 51: 255-268.
3. Han, W., et al. 2001. Molecular cloning and characterization of chemokine-like factor 1 (CKLF1), a novel human cytokine with unique structure and potential chemotactic activity. Biochem. J. 357: 127-135.
4. Lou, Y., et al. 2003. Molecular cloning and characterization of rat chemokine-like factor 1 and 2. Gene 307: 125-132.
5. Rui, M., et al. 2003. Molecular cloning and characterization of four isoforms of mCKLF, mouse homologues of human chemokine-like factor. Mol. Biol. Rep. 30: 229-237.
6. Tan, Y.X., et al. 2004. Chemokine-like factor 1, a novel cytokine, contributes to airway damage, remodeling and pulmonary fibrosis. Chin. Med. J. 117: 1123-1129.
7. Liu, Y., et al. 2008. Analysis of the interactions between the peptides from secreted human CKLF1 and heparin using capillary zone electrophoresis. J. Pept. Sci. 14: 984-988.

CHROMOSOMAL LOCATION

Genetic locus: CKLF (human) mapping to 16q21.

SOURCE

CKLF (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CKLF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109508 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CKLF (C-12) is recommended for detection of CKLF of human 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CKLF siRNA (h): sc-93286, CKLF shRNA Plasmid (h): sc-93286-SH and CKLF shRNA (h) Lentiviral Particles: sc-93286-V.

Molecular Weight (observed) of CKLF: 26 kDa.

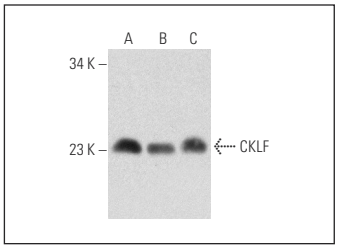
Molecular Weight of CKLF isoforms 1/2/3/4: 11/17/8/14 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CKLF (C-12): sc-109508. Western blot analysis of CKLF expression in Jurkat (**A**), RAW 264.7 (**B**) and MM-142 (**C**) whole cell lysates.

STORAGE

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

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.