SANTA CRUZ BIOTECHNOLOGY, INC.

IL-32 (AT2F9): sc-517408

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The interleukins make up a large family of well characterized cytokines, primarily of hematopoietic cell origin. The interleukins are secreted by immune cells (mainly macrophages, B cells and T cells) that regulate a wide range of immune system functions. Interleukin-32 (IL-32), also designated Natural Killer (NK) cell transcript 4 (nk4), may play a role in inflammatory responses such as lymphocyte activation. IL-32 is secreted following stimulation with inflammatory cytokines such as IL-1β and IFN-γ, and by NK cells after exposure to IL-12 and IL-18. It also induces production of IL-1β, TNFα, MIP-2 and IL-6. Expression of IL-32 increases after activation of T cells by mitogens or activation of NK cells by IL-2. The IL-32 protein contains three potential N-myristoylation sites, a tyrosine sulfation site, an RGD cell-attachment se-quence and multiple putative phosphorylation sites. Human IL-32 exists as four isoforms.

REFERENCES

1. Dahl, C.A., Schall, R.P., He, H.L. and Cairns, J.S. 1992. Identification of a novel gene expressed in activated na and T cells. J. Immunol. 148: 597-603.
2. Kim, S.H., Han, S.Y., Azam, T., Yoon, D.Y. and Dinarello, C.A. 2005. Interleukin-32: a cytokine and inducer of TNFα. Immunity 22: 131-142.
3. Netea, M.G., Azam, T., Ferwerda, G., Girardin, S.E., Walsh, M., Park, J.S., Abraham, E., Kim, J.M., Yoon, D.Y., Dinarello, C.A. and Kim, S.H. 2005. IL-32 synergizes with nucleotide oligomerization domain (NOD) 1 and NOD2 ligands for IL-1β and IL-6 production through a caspase 1-dependent mechanism. Proc. Natl. Acad. Sci. USA 102: 16309-16314.
4. Joosten, L.A., Netea, M.G., Kim, S.H., Yoon, D.Y., Oppers-Walgreen, B., Radstake, T.R., Barrera, P., van de Loo, F.A., Dinarello, C.A. and van den Berg, W.B. 2006. IL-32, a proinflammatory cytokine in rheumatoid arthritis. Proc. Natl. Acad. Sci. USA 103: 3298-3303.
5. Novick, D., Rubinstein, M., Azam, T., Rabinkov, A., Dinarello, C.A. and Kim, S.H. 2006. Proteinase 3 is an IL-32 binding protein. Proc. Natl. Acad. Sci. USA 103: 3316-3321.

CHROMOSOMAL LOCATION

Genetic locus: IL32 (human) mapping to 16p13.3.

SOURCE

IL-32 (AT2F9) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 1-131 of IL-32 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with 0.02% sodium azide and 10% glycerol.

STORAGE

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

APPLICATIONS

IL-32 (AT2F9) is recommended for detection of IL-32 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 IL-32 siRNA (h): sc-60841, IL-32 shRNA Plasmid (h): sc-60841-SH and IL-32 shRNA (h) Lentiviral Particles: sc-60841-V.

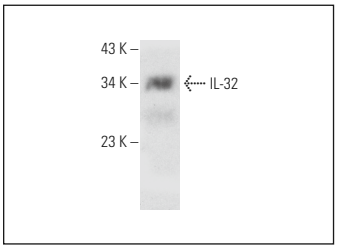
Molecular Weight of IL-32: 25 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IL-32 (AT2F9): sc-517408. Western blot analysis of IL-32 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zhai, J.M., An, Y.H., Wang, W., Fan, Y.G. and Yao, G.L. 2019. IL-32 expression indicates unfavorable prognosis in patients with colon cancer. Oncol. Lett. 17: 4655-4660.

RESEARCH USE

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

PROTOCOLS

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