SANTA CRUZ BIOTECHNOLOGY, INC.

IL-5 (hBA-116): sc-4596

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interleukin 5, or IL-5, was originally discovered as a soluble T cell-derived factor, called T cell-replacing factor (TRF), that induced T cell-depleted activated B cells to secrete immunoglobulin. Native IL-5 is a disulfide-linked homodimer of 45 kDa. IL-5 is initially synthesized as a precursor with a 19 amino acid signal peptide which is cleaved to form a 112 amino acid mature protein. Murine and human IL-5 exhibit 70% sequence identity at the amino acid level. IL-5 exerts its biological activity through the IL-5 receptor (IL-5R), which is composed of at least two chains: a 60 kDaα chain that binds IL-5 with low affinity and a 130 kDaβ chain that does not bind IL-5, but together with the IL-5α chain, constitutes the high affinity IL-5 receptor. The 130 kDaβ chain is common to the IL-3, IL-5 and GM-CSF receptors and has been shown to signal through the JAK/Stat pathway.

REFERENCES

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SOURCE

IL-5 (hBA-116) is produced in *E. coli* as 40 kDa biologically active, GST-tagged fusion protein corresponding to 116 amino acids of IL-5 of human origin.

PRODUCT

IL-5 (hBA-116) is purified from bacterial lysates (>98%); supplied as 50 µg purified protein.

BIOLOGICAL ACTIVITY

IL-5 (hBA-116) is biologically active as determined by the dose-dependent proliferation of human TF-1 cells.

Expected ED_{50}: <0.15 ng/ml.

Specific Activity: Greater than 6 x 10^6 units/mg.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

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.