SANTA CRUZ BIOTECHNOLOGY, INC.

Ku-70 (302-609): sc-4412 WB



BACKGROUND

The Ku protein is localized in the nucleus and is composed of subunits of 70 and 86 kDa (referred to as p70 and p86). Ku was first described as an autoantigen to which antibodies are produced in a patient with scleroderma polymyositis overlap syndrome, and later found in the sera of patients with other rheumatic diseases. Both subunits of the Ku protein have been cloned, and a number of functions have been proposed for Ku, including cell signaling, DNA replication, and transcriptional activation. Ku is involved in Pol II-directed transcription by virtue of its DNA binding activity, serving as the regulatory component of the DNA-associated protein kinase that phosphorylates Pol II and transcription factor Sp1. Ku proteins also activate transcription from the U1 small nuclear RNA and the human transferrin receptor gene promoters. A Ku-related protein designated the enhancer I binding factor (E1BF), composed of 72 and 85 kDa subunits, has been identified as a positive regulator of RNA polymerase I transcription initiation.

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SOURCE

Ku-70 (302-609) is expressed in *E. coli* as a 61 kDa tagged fusion protein corresponding to amino acids 302-609 of Ku-70 of human origin.

PRODUCT

Ku-70 (302-609) is purified from bacterial lysates (>98%) by column chromatography; supplied as 10 µg protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

Ku-70 (302-609) is suitable as a Western blotting control for sc-1486, sc-1487, sc-5309, sc-9033 and sc-17789.

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.