



Product Datasheet

Product Name	Ku P70/P80 Human Recombinant
Cata No	CB501018
Source	<i>Sf9 insect cells.</i>
Synonyms	ATP-dependent DNA helicase 2 subunit 1, ATP-dependent DNA helicase II 70 kDa subunit, Lupus Ku autoantigen protein p70, Ku70, 70 kDa subunit of Ku antigen, Thyroid-lupus autoantigen, TLAA, CTC box-binding factor 75 kDa subunit, CTCBF, CTC75, DNA-repair protein XRCC6, G22P1, XRCC6, ML8.

Description

Ku antigen consists of two polypeptides (70 kDa and 80 kDa; the p80 subunit is occasionally called p86). The Ku heterodimer provides DNA-binding and regulatory functions to DNA-dependent protein kinase which is a central enzyme for DNA recombination processes in eucaryotic cells. The Ku protein plays important roles in multiple nuclear processes including DNA repair, V(D)J recombination, telomere maintenance, and the regulation of specific gene transcription. Antibodies to Ku were originally reported in scleroderma-polymyositis overlap syndrome (up to 20% of patients) but have also been detectable in about 20 % of patients with primary pulmonary hypertension (as a complication of overlap), in 5-10 % of SLE and MCTD patients, and in up to 20 % of patients with primary Sjögren's syndrome. In IIF using HEp-2 cells, Ku-positive sera yield a dense, fine granular pattern with nucleolar staining that is typical but not specific for anti-Ku. Detection of Ku antibodies by Western blot may bear false-negative results since the main reactive

epitope on the p70/p80 heterodimer is conformation-dependent.

KuP70/P80 Human Recombinant produced in SF9 insect cells is a glycosylated, polypeptide chain having a molecular mass of 70,638 Dalton for the p70 subunit and 83,528 Dalton for the p80 subunit. Ku (P70/P80) is expressed with a -6xHis tag and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered clear solution.

Purity

Greater than 90% as determined by SDS-PAGE.

Formulation

KuP70/P80 is supplied in 16mM HEPES buffer pH-8, 160mM NaCl, and 20% glycerol.

Applications

Western-Blot with monoclonal anti-hexa-His-tag antibody & anti-Ku autoantibody-positive patient sera.