

## XRCC6

## Recombinant Human KU P70/P80 His

**Catalog No.** CRK106A **Quantity:** 5 μg

CRK106B 20 μg CRK106C 1.0 mg

Alternate Names: 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 Sjogren'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 MW = 70,638 Dalton for the p70 subunit and 83,528 Dalton

for the p80 subunit.

Ku (P70/P80) is expressed with a -6x His tag and purified by proprietary chromatographic

E-mail: <u>info@cellsciences.com</u>
Website: www.cellsciences.com

techniques.

**Physical Appearance:** Sterile Filtered clear solution.

**Gene ID:** 2547

Source: Sf9 insect cells

**Molecular Weight:** 70,638 Dalton for the p70 subunit and 83,528 Dalton for the p80 subunit

Formulation: Ku P70/P80 is supplied in 16 mM HEPES buffer pH-8 + 160 mM NaCl and 20% glycerol.

**Purity:** Greater than 90% as determined by SDS-PAGE.

**Coating Concentration:** 0.2-0.6 μg/ml (depending on the type of ELISA plate and coating buffer).

Suitable for biotinylation and iodination.

**Immunological** 1. Binds IgG-type human auto-antibodies.

Functions: 2. Standard ELISA test (checker-board analysis of positive/negative sera panels

including CDC international reference sera).

Applications: Western-Blot with monoclonal anti-hexa-His-tag antibody & anti-Ku autoantibody-positive

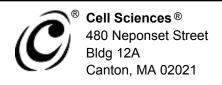
Toll Free: 888-769-1246

Phone: 781-828-0610

Fax: 781-828-0542

patient sera.

Storage & Stability:





Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. **Avoid multiple freeze-thaw cycles.** 

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

Toll Free: 888-769-1246 E-mail: <a href="mailto:info@cellsciences.com">info@cellsciences.com</a>
Phone: 781-828-0610 Website: <a href="mailto:www.cellsciences.com">www.cellsciences.com</a>
Fax: 781-828-0542