



Rabbit Anti-Ku-80 antibody

SL1358R

Product Name:	Ku-80
Chinese Name:	DNA修复酶Ku-80抗体
Alias:	86 kDa subunit of Ku antigen; ATP dependent DNA helicase 2 subunit 2; ATP dependent DNA helicase II 80 kDa subunit; ATP dependent DNA helicase II 86 Kd subunit; ATP dependent DNA helicase II; ATP-dependent DNA helicase 2 subunit 2; ATP-dependent DNA helicase II 80 kDa subunit; CTC box binding factor 85 kDa; CTC box-binding factor 85 kDa subunit; CTC85; CTCBF; DNA repair protein XRCC5; KARP 1; KARP1; Ku 80; Ku autoantigen 80kDa; Ku80; Ku86; Ku86 autoantigen related protein 1; KUB 2; KUB2; Lupus Ku autoantigen protein p86; NFIV; Nuclear factor IV; Thyroid lupus autoantigen; Thyroid-lupus autoantigen; TLAA; X ray repair complementing defective repair in Chinese hamster cells 5 (double strand break rejoining); X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining); X-ray repair cross-complementing protein 5; Xray repair complementing defective repair in Chinese hamster cells 5; XRCC 5; XRCC5; XRCC5 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	83kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Ku-80:301-450/732
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>The protein encoded by this gene is the 80-kilodalton subunit of the Ku heterodimer protein which is also known as ATP-dependant DNA helicase II or DNA repair protein XRCC5. Ku is the DNA-binding component of the DNA-dependent protein kinase, and it functions together with the DNA ligase IV-XRCC4 complex in the repair of DNA double-strand break by non-homologous end joining and the completion of V(D)J recombination events. This gene functionally complements Chinese hamster xrs-6, a mutant defective in DNA double-strand break repair and in ability to undergo V(D)J recombination. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity.</p> <p>Function: Single stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome translocation. The DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 dimer acts as regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA by 100-fold. The XRCC5/6 dimer is probably involved in stabilizing broken DNA ends and bringing them together. The assembly of the DNA-PK complex to DNA ends is required for the NHEJ ligation step. In association with NAA15, the XRCC5/6 dimer binds to the osteocalcin promoter and activates osteocalcin expression. The XRCC5/6 dimer probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5-phosphate at an abasic site near double-strand breaks. XRCC5 probably acts as the catalytic subunit of 5'-dRP activity, and allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription.</p> <p>Subunit: Heterodimer of a 70 kDa and a 80 kDa subunit.</p> <p>Subcellular Location: Nucleus. Chromosome.</p> <p>Similarity: Belongs to the ku80 family. Contains 1 Ku domain.</p> <p>SWISS: P13010</p>

Gene ID:
7520

Database links:

[Entrez Gene: 7520](#)Human

[Entrez Gene: 22596](#)Mouse

[Omim: 194364](#)Human

[SwissProt: P13010](#)Human

[SwissProt: P27641](#)Mouse

[Unigene: 388739](#)Human

[Unigene: 246952](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Ku80也是一种DNA修复蛋白，当细胞在受到辐射损伤而发生DNA双链断裂时，Ku80可迅速将其修复，从而提高细胞存活率。

Ku是一种多功能的蛋白，在许多重要的细胞生命过程中起着直接或间接的作用，如DNA双链断裂的修复，免疫球蛋白和T细胞受体V(D)J重排，免疫球蛋白构型转换，DNA复制，DNA转录的调节，同时在细胞周期的G2和M时相中起着特殊的作用。