

Ku-80 Rabbit pAb

CatalogNo: YT6204

Key Features

Host Species Reactivity Applications
• Rabbit • Human, Mouse • IHC, IF, WB

MW Isotype • 82kD (Observed) • IgG

Recommended Dilution Ratios

IHC 1:50-200 WB 1:500-2000 IF 1:50-200

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized peptide derived from human Ku-80

Specificity This antibody detects endogenous levels of human Ku-80

| Target Information

Gene name XRCC5 G22P2

Protein Name

Ku-80

Organism	Gene ID	UniProt ID
Human	<u>7520</u> ;	<u>P13010</u> ;

Cellular Localization

Nucleus . Nucleus, nucleolus . Chromosome .

Tissue specificity Cervix carcinoma, Coronary artery, Heart, Neuroblastoma, Osteoblast, Thy

Function

developmental stage: Expression increases during promyelocyte differentiation., Disease: Individuals with systemic lupus erythematosus (SLE) and related disorders produce extremely large amounts of autoantibodies to p70 and p86., Domain: The EEXXXDDL motif is required for the interaction with catalytic subunit PRKDC and its recruitment to sites of DNA damage., Function: Single stranded DNA-dependent ATPdependent 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 p70. Involved in DNA nonhomologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The Ku p70/p86 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 Ku p70/p86 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 NHEI ligation step. In association with NARG1, the Ku p70/p86 dimer binds to the osteocalcin promoter and activates osteocalcin expression.,induction:In osteoblasts, by FGF2.,PTM:Phosphorylated on serine residues. Phosphorylation by PRKDC may enhance helicase activity.,PTM:Sumoylated.,similarity:Belongs to the ku80 family.,similarity:Contains 1 Ku domain., subunit: Heterodimer of a 70 kDa and a 80 kDa subunit. The dimer associates in a DNA-dependent manner with PRKDC to form the DNA-dependent protein kinase complex DNA-PK, and with the LIG4-XRCC4 complex. The dimer also associates with NARG1, and this complex displays DNA binding activity towards the osteocalcin FGF response element (OCFRE). In addition, the 80 kDa subunit binds to the osteoblast-specific transcription factors MSX2 and RUNX2. Interacts with ELF3. May interact with APLF..

Validation Data



Immunohistochemical analysis of paraffin-embedded human Small intestinal stromal tumor. 1, Tris-EDTA,pH9.0 was used for antigen retrieval. 2 Antibody was diluted at 1:200(4° overnight.3,Secondary antibody was diluted at 1:200(room temperature, 45min).

| Contact information

Orders: order@immunoway.com Support: tech@immunoway.com

Telephone: 877-594-3616 (Toll Free), 408-747-0185

Website: http://www.immunoway.com

Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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