

**Product Name: KD-Validated Ku70 Recombinant Rabbit Monoclonal Antibody****Catalog #: KVA01152**

For research use only.

**Summary**

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC                                                                  |
| <b>Reactivity</b>   | Human                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

**Application**

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000 |
| <b>Molecular Weight</b> | Calculated MW: 69.8kDa                                  |

**Antigen Information**

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | XRCC6<br>XRCC6; X-Ray Repair Cross Complementing 6; X-Ray Repair Complementing Defective Repair In Chinese Hamster Cells 6; G22P1; KU70; ML8; X-Ray Repair Cross-Complementing Protein 6; Thyroid Autoantigen 70kDa (Ku Antigen); ATP-Dependent DNA Helicase 2 Subunit 1; Thyroid Autoantigen 70kD (Ku Antigen); 5'-Deoxyribose-5-Phosphate Lyase Ku70; Lupus Ku Autoantigen Protein P70; 70 KDa Subunit Of Ku Antigen; DNA Repair Protein XRCC6; Ku Autoantigen, 70kDa; 5'-DRP Lyase Ku70; D22S731; D22S671; CTC75; CTCBF; TLAA; ATP-Dependent DNA Helicase II, 70 KDa Subunit; ATP-Dependent DNA Helicase II 70 KDa Subunit; CTC Box Binding Factor 75 KDa Subunit; CTC Box-Binding Factor 75 KDa Subunit; Thyroid-Lupus Autoantigen P70; Ku Autoantigen P70 Subunit; Thyroid-Lupus Autoantigen; EC 4.2.99.-; EC 3.6.4.-; Ku70 |
| <b>Alternative Names</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|                     |                                               |
|---------------------|-----------------------------------------------|
| <b>Gene ID</b>      | 2547.0                                        |
| <b>SwissProt ID</b> | P12956                                        |
| <b>Immunogen</b>    | A synthesized peptide derived from human Ku70 |

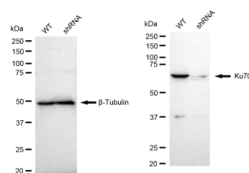
## Background

The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for double-strand break repair, transposition, and V(D)J recombination. High levels of autoantibodies to p70 and p80 have been found in some patients with systemic lupus erythematosus. [provided by RefSeq, Jul 2008]

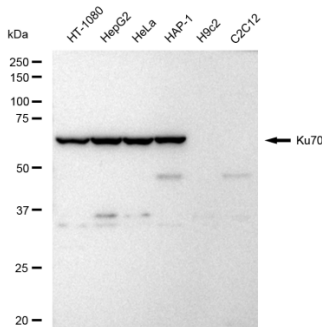
## Research Area

Epigenetics and Nuclear Signaling,Cancer

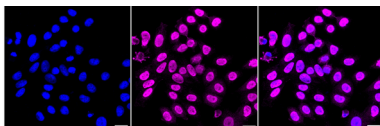
## Image Data



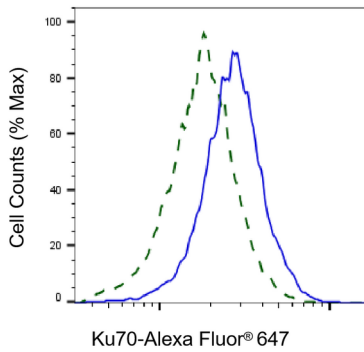
Western blotting analysis using Ku70 antibody (KVA01152). Ku70 expression in wild type (WT) and Ku70 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Ku70 antibody (KVA01152, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



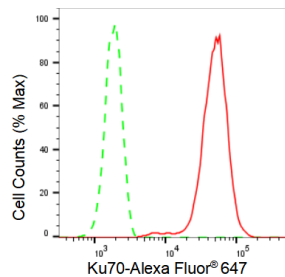
Western blotting analysis using Ku70 antibody (KVA01152). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Ku70 antibody (KVA01152, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with Ku70 antibody (KVA01152, 1:1,000). Nuclei were stained blue with DAPI; Ku70 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: High. Scale bar, 20 µm.



Validation of Ku70 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Ku70 antibody (KVA01152, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Ku70 expression in HepG2 cells using Ku70 antibody (KVA01152, 1:2,000). Green, isotype control; red, Ku70.