



## Ku70 (aK-17): sc-27168

### BACKGROUND

In higher organisms such as mammals and plants, DNA double-strand breaks are repaired preferentially by non-homologous end joining (NHEJ) rather than by homologous recombination. The NHEJ pathway is mediated by Ku, a heterodimer of approximately 70 and 80 kDa subunits, which contributes to various aspects of the metabolism of DNA ends in eukaryotic cells. This heterodimer binds to double-stranded telomeric and non-telomeric DNA sequences. The *Arabidopsis* Ku heterodimer also possesses single-stranded DNA-dependent ATPase and ATP-dependent DNA helicase activities. Ku80 can translocate to the nucleus using its own NLS independent of the translocation of Ku70.

### REFERENCES

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### SOURCE

Ku70 (aK-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ku70 of *Arabidopsis thaliana* origin.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27168 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Ku70 (aK-17) is recommended for detection of Ku70 of *Arabidopsis thaliana* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Ku70: 70 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.