

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                 |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Ku80 in Western blots.                                                  |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                   |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                             |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Ku80<br>Asn402-Lys565<br>Accession # P13010 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm       |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                          |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                       |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Ku80 (Lupus Ku autoantigen protein p86; also ATP-dependent DNA helicase 2 subunit 2 and Ku86) is a ubiquitous 80 - 85 kDa nuclear protein that serves as a component of DNA-dependent protein kinase. In particular, it heterodimerizes with Ku70 to form a complex that binds DNA ends and select sequences, and which recruits DNA-PKcs for the purpose of phosphorylating multiple chromatin-bound proteins, including p53, Oct-1 and Sp-1. The Ku:DNA-PKcs complex participates in DNA repair, DNA replication, and VDJ recombination. Human Ku80 is 732 amino acids (aa) in length. It contains a Ku domain (aa 244 - 543) with a DNA binding motif (aa 257 - 268), and a C-terminal DNA-PKcs-binding sequence (aa 720 - 728). Over aa 402 - 565, Ku80 shares 77% aa identity with mouse Ku80.

#### PRODUCT SPECIFIC NOTICES

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