

# **Human Ku80/XRCC5 Antibody**

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF5619

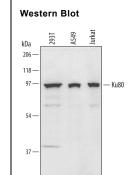
DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects endogenous human Ku80 in Western blots.	
Source	Polyclonal Goat IgG	
Purification	Antigen Affinity-purified	
Immunogen	E. coli-derived recombinant human Ku80 Asn402-Lys565 Accession # P13010	
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.	

### **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.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below

#### DATA



Detection of Human Ku80/XRCC5 by Western Blot. Western blot shows Iysates of 293T human embryonic kidney cell line, A549 human lung carcinoma cell line, and Jurkat human acute T cell leukemia cell line. PVDF membrane was probed with 1 µg/mL of Human Ku80/XRCC5 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5619) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Ku80/XRCC5 at approximately 86 KDa (as indicated). This experiment was conducted under reducing conditions and using Immunobiot Buffer Group 1.

# PREPARATION AND STORAGE

THE PRODUCTION OF THE PRODUCT OF THE			
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.		
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.		
	*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C		
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- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## 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.

