Product Datasheet

Ku70/80 Antibody

Catalog No: #33425

Package Size: #33425-1 50ul #33425-2 100ul

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

Description

Product Name	Ku70/80 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous levels of total Ku70/80 protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from human Ku70/80.
Target Name	Ku70/80
Other Names	86 kDa subunit of Ku antigen; ATP-dependent DNA helicase II; 80 kDa subunit; CTC box binding factor 85 kDa subunit; CTC85
Accession No.	Swiss-Prot: P12956/P13010NCBI Gene ID: 7520
Uniprot	P12956
GeneID	2547;
SDS-PAGE MW	70,82kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

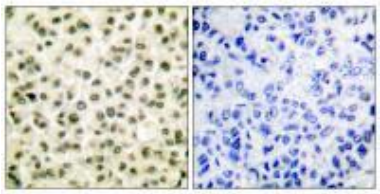
Application Details

Western blotting: 1:500~1:3000

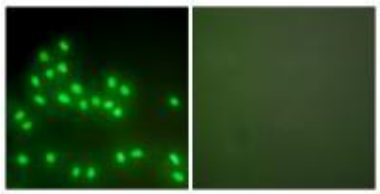
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:500

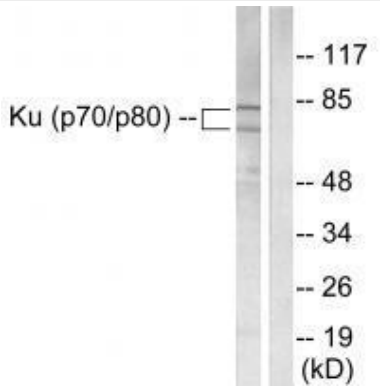
Images



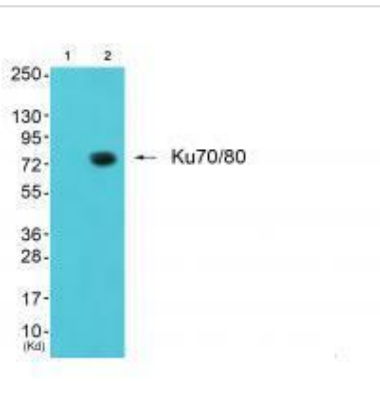
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Ku70/80 antibody #33425.



Immunofluorescence analysis of A549 cells, using Ku70/80 antibody #33425.



Western blot analysis of extracts from LOVO cells, using Ku70/80 antibody #33425.



Western blot analysis of extracts from JK cells (Lane 2), using Ku80 antiobdy #33425. The lane on the left is treated with synthesized peptide.

Background

Single-stranded DNA-dependent ATP-dependent 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 XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 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 XRCC5/6 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 NHEJ ligation step. Required for osteocalcin gene expression. Probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5-phosphate at an abasic site near double-strand breaks. 5'-dRP lyase

activity allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription.
Shankar Mitra, AAPG Bulletin, Oct 2006; 90: 1565 - 1584.
Ward Giffin, Mol. Cell. Biol., Jun 1999; 19: 4065 - 4078.
Huichen Wang, Nucleic Acids Res., Sep 2003; 31: 5377 - 5388.
Boris Kysela, J. Biol. Chem., Jun 2003; 278: 22466 - 22474.

Note: This product is for in vitro research use only