

XRCC6 Antibody

Catalog No: #33551

Package Size: #33551-1 50ul #33551-2 100ul

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

Description

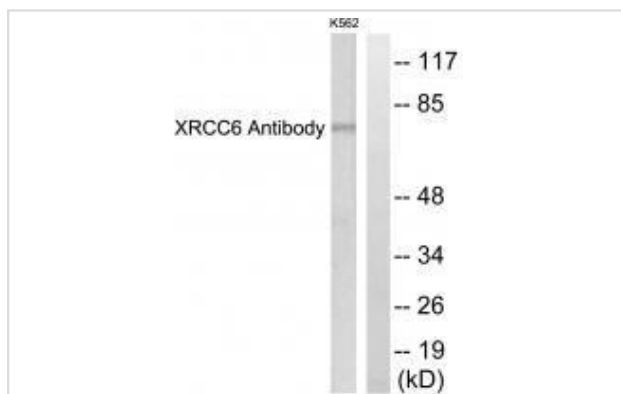
Product Name	XRCC6 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total XRCC6 protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from C-terminal of human XRCC6.
Target Name	XRCC6
Other Names	70 kDa subunit of Ku antigen; ATP-dependent DNA helicase II; 70 kDa subunit; CTC box binding factor 75 kDa subunit; CTC75
Accession No.	Swiss-Prot: P12956NCBI Gene ID: 2547
SDS-PAGE MW	70kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), 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

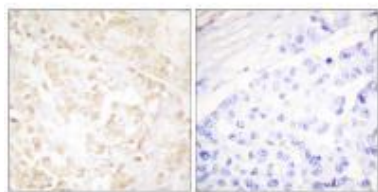
Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from K562 cells, using XRCC6 antibody #33551.

Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue using XRCC6 antibody #33551.



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.

Yanhong Liu, *Carcinogenesis*, Mar 2007; 10.1093.

Erich M. Sturgis, *Arch Otolaryngol Head Neck Surg*, Feb 1999; 125: 185.

Yansong Gu, *PNAS*, Jul 1997; 94: 8076.

Kyoung-Mu Lee, *Clin. Cancer Res.*, Jun 2005; 11: 4620 - 4626.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.