

Recombinant human X-ray repair cross-complementing protein 6



Catalog No: #AP71730

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

Package Size: #AP71730-1 20ug #AP71730-2 100ug #AP71730-3 1mg

Description

Product Name	Recombinant human X-ray repair cross-complementing protein 6
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:6-222aaSequence Info:Partial
Other Names	5'-deoxyribose-5-phosphate lyase Ku70 ;5'-dRP lyase Ku7070KDA subunit of Ku antigen;ATP-dependent DNA helicase 2 subunit 1ATP-dependent DNA helicase II 70KDA subunitCTC box-binding factor 75KDA subunit ;CTC75 ;CTCBFDNA repair protein XR;CC6Lupus Ku autoantigen protein p70 ;Ku70Thyroid-lupus autoantigen ;TLAAX-ray repair complementing defective repair in Chinese hamster cells 6
Accession No.	P12956
Uniprot	P12956
GeneID	2547;
Calculated MW	28.8 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	SYKTEGDEEAEQEEENLEASGDYKYSGRDSLIFLVDASKAMFESQSEDELTPFDMSIQCIQSVYISKIISDR DLLAVVFGTEKDKNSVNFKNIVLQELDNPGAKRILELDQFKGQQGQKRFQDMMGHGSDYSLSEVLWVCAN LFSDVQFKMSHKRIMLFTNEDNPHGNSAKASRARTKAGDLRDTGIFLDMHLKPKGGFDISLFYRDIIS
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

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

References

Cloning and characterization of a cDNA that encodes a 70-KDA novel human thyroid autoantigen.Chan J.Y., Lerman M.I., Prabhakar B.S., Isozaki O., Santisteban P., Kuppers R.C., Oates E.L., Notkins A.L., Kohn L.D.J. Biol. Chem. 264:3651-3654(1989)Research Topic:Epigenetics and Nuclear Signaling

Note: This product is for in vitro research use only