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Product datasheet for TP509374

Xrcc6 (NM_010247) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse X-ray repair complementing defective repair in Chinese hamster cells 6 (Xrcc6), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR209374 protein sequence Red=Cloning site Green=Tags(s) MSEWESYYKTEGEEEEEEEESPDTGGEYKYSGRDSLIFLVDASRAMFESQGEDELTPFDMSIQCIQSVYT SKIISSDRDLLAVVFYGTEKDKNSVNFKNIYVLQDLDNPGAKRVLELDQFKGQQGKKHFRDTVGHGSDYS LSEVLWVCANLFSDVQLKMSHKRIMLFTNEDDPHGRDSAKASRARTKASDLRDTGIFLDLMHLKKPGGFD VSVFYRDIITTAEDEDLGVHFEESSKLEDLLRKVRAKETKKRVLSRLKFKLGEDVVLMVGIYNLVQKANK PFPVRLYRETNEPVKTKTRTFNVNTGSLLLPSDTKRSLTYGTRQIVLEKEETEELKRFDEPGLILMGFKP TVMLKKQHYLRPSLFVYPEESLVSGSSTLFSALLTKCVEKKVIAVCRYTPRKNVSPYFVALVPQEEELDD QNIQVTPGGFQLVFLPYADDKRKVPFTEKVTANQEQIDKMKAIVQKLRFTYRSDSFENPVLQQHFRNLEA LALDMMESEQVVDLTLPKVEAIKKRLGSLADEFKELVYPPGYNPEGKVAKRKQDDEGSTSKKPKVELSEE ELKAHFRKGTLGKLTVPTLKDICKAHGLKSGPKKQELLDALIRHLEKN TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	69.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

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RefSeq:	NP_034377
Locus ID:	14375
UniProt ID:	P23475, A0A0R4J187
RefSeq Size:	2113
Cytogenetics:	15 38.33 cM
RefSeq ORF:	1827
Synonyms:	70kDa; G22p1; Ku70
Summary:	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. Plays a role in the regulation of DNA virus-mediated innate immune response by assembling into the HDP-RNP complex, a complex that serves as a platform for IRF3 phosphorylation and subsequent innate immune response activation through the cGAS-STING pathway (By similarity).[UniProtKB/Swiss-Prot Function]