

Recombinant Human DNA repair protein XRCC3(XRCC3)

Catalog No: #AP70923

Package Size: #AP70923-1 20ug #AP70923-2 100ug #AP70923-3 1mg

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Description

Product Name	Recombinant Human DNA repair protein XRCC3(XRCC3)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-316aaSequence Info:Full Length
Other Names	X-ray repair cross-complementing protein 3
Accession No.	O43542
Calculated MW	50.8 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	MDLLDLNPRIIAAIKKAKLKSVEVLHFSGPDLKRLTNLSSPEVWHLLRTASLHLRGSSILTALQLHQQKERF PTQHQRLSLGCPVLDALLRGGLPLDGITELAGRSSAGKTQLALQLCLAVQFPRQHGGLEAGAVYICTEDAFPH KRLQQLMAQQPRLRTDVPGELLQKLRFSGQIFIEHVADVDTLLECYNKKVPVLLSRGMARLVVIDSVAAPFRCE FDSQASAPRARHLQSLGATLRELSSAFQSPVLCINQVTEAMEEQGAHGPLGFWDERSVPALGITWANQLLV RLLADRLREEEAALGCPARTLR
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

Involved in the homologous recombination repair (HRR) pathway of double-stranded DNA, thought to repair chromosomal fragmentation, translocations and deletions. Part of the RAD21 paralog protein complex CX3 which acts in the BRCA1-BRCA2-dependent HR pathway. Upon DNA damage, CX3 acts downstream of RAD51 recruitment; the complex binds predominantly to the intersection of the four duplex arms of the Holliday junction (HJ) and to junctions of replication forks. Involved in HJ resolution and thus in processing HR intermediates late in the DNA repair process; the function may be linked to the CX3 complex and ses to involve GEN1 during mitotic cell cycle progression. Part of a PALB2-scaffolded HR complex containing BRCA2 and RAD51C and which is thought to play a role in DNA repair by HR. Plays a role in regulating mitochondrial DNA copy number under conditions of oxidative stress in the presence of RAD51 and RAD51C.

References

Rad51 paralog complexes BCDX2 and CX3 act at different stages in the BRCA1-BRCA2-dependent homologous recombination pathway.Chun J., Buechelmaier E.S., Powell S.N.Mol. Cell. Biol. 33:387-395(2013)Research Topic:Epigenetics and Nuclear Signaling

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