

Product datasheet for **RG218029**

XRCC4 (NM_022550) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	XRCC4 (NM_022550) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	XRCC4
Synonyms:	SSMED
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218029 representing NM_022550 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAGAAAAAATAGCAGAATCCACCTGTTTCTGAACCCAGTATAACTCATTTTCTACAAGTATCTT
GGGAGAAAACACTGGAATCTGGTTTTGTTATTACACTTACTGATGGTCATTCAGCATGGACTGGGACAGT
TTCTGAATCAGAGATTTCCCAAGAAGCTGATGACATGGCAATGGAAAAAGGAAATATGTTGGTGAAGT
AGAAAAGCATTGTTGTCAGGAGCAGGACCAGCTGATGTATACACGTTAATTTTTCTAAAGAGTCTTGTT
ATTTCTTCTTTGAGAAAAACCTGAAAGATGTCTCATTGACTTGGTTCCTTCAACCTAGAGAAAGTTGA
AAACCCAGCTGAAGTCATTAGAGAACTTATTTGTTATTGCTTGGACACCATTGCAGAAAAATCAAGCCAAA
AATGAGCACCTGCAGAAAAGAAAATGAAAGGCTTCTGAGAGATTGGAATGATGTTCAAGGACGATTTGAAA
AATGTGTGAGTGCTAAGGAAGCTTTGGAGACTGATCTTTATAAGCGGTTTATTCTGGTGTGAAATGAGAA
GAAAACAAAAATCAGAAGTTTGCATAATAAATTATTAATGCAGCTCAAGAACGAGAAAAGGACATCAAA
CAAGAAGGGGAACTGCAATCTGTTCTGAAATGACTGCTGACCGAGATCCAGTCTATGATGAGAGTACTG
ATGAGGAAAGTAAAACCAACTGATCTCTCTGGGTTGGCTTCAAGTAAAGATGATTCCAT
TATTTCAAGTCTTGATGTCACTGATATTGCACCAAGTAGAAAAAGGAGACAGCGAATGCAAAGAAATCTT
GGGACAGAACCTAAAATGGCTCCTCAGGAGAATCAGCTTCAAGAAAAGGAAAATCTAGGCCTGATTCTT
CACTACCTGAGACGTCTAAAAGGAGCACATCTCAGCTGAAAACATGTCTTTAGAAACTTGAGAAAACAG
CAGCCAGAAGACCTCTTTGATGAGATT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG218029 representing NM_022550
Red=Cloning site Green=Tags(s)

MERKISRHLVSEPSITHFLQVSWEKTLES GFVITLTDGHSAWTGTVSESEISQEADDMAMEKGYV GEL
 RKALLSGAGPADVYTFNF SKESC YFFFEKNLKDVSFRLG SFNLEKVENPAEVIRELIC YCLDTIAENQAK
 NEHLQKENERLLRDWNDVQGRFEKCVSAKEALETDL YKRFILVLNEKTKIRSLHNKLLNAAQEREKDIK
 QEGETAICSEMTADRD PVYDESTDEESENQTDLSGLASAAVSKDDSIISLSDVTDIAPSRKRRQRMQRNL
 GTEPKMAPQENQLQE KENSRPDSSLPETSKKEHISAENMSLET LNRNSSPEDLFDEI

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022550

ORF Size: 1008 bp

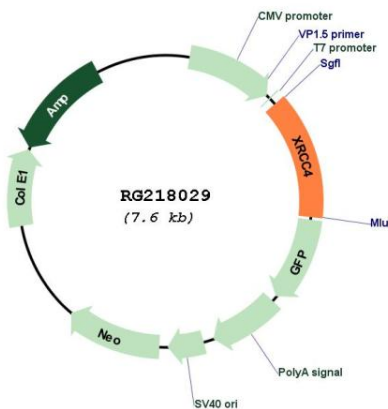
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
- RefSeq:** [NM_022550.1](#), [NP_072044.1](#)
- RefSeq Size:** 1707 bp
- RefSeq ORF:** 1005 bp
- Locus ID:** 7518
- UniProt ID:** [Q13426](#)
- Cytogenetics:** 5q14.2
- Protein Families:** Druggable Genome
- Protein Pathways:** Non-homologous end-joining
- Gene Summary:** The protein encoded by this gene functions together with DNA ligase IV and the DNA-dependent protein kinase in the repair of DNA double-strand breaks. This protein plays a role in both non-homologous end joining and the completion of V(D)J recombination. Mutations in this gene can cause short stature, microcephaly, and endocrine dysfunction (SSMED). Alternate transcript variants such as NM_022406 are unlikely to be expressed in some individuals due to a polymorphism (rs1805377) in the last splice acceptor site. [provided by RefSeq, Oct 2019]

Product images:



Circular map for RG218029