

## Product datasheet for RC202185

### hHR23b (RAD23B) (NM\_002874) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	hHR23b (RAD23B) (NM_002874) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	hHR23b
Synonyms:	HHR23B; HR23B; P58
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202185 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAAGTCAACCCTGAAGACCCTCCAGCAGCAGACCTTCAAGATAGACATTGACCCCGAGGAGACGGTGA  
AAGCACTGAAAGAGAAGATTGAATCTGAAAAGGGGAAAGATGCCTTCCAGTAGCAGGTCAAAAATTAAT  
TTATGCAGGCAAAATCCTCAATGATGATACTGCTCTCAAAGAATATAAAATTTGATGAGAAAACTTTGTG  
GTGGTTATGGTGACCAAACCCAAAGCAGTGTCCACACCAGCACCAGCTACAACCTCAGCAGTCAGCTCCTG  
CCAGCACTACAGCAGTTACTTCTCCACCACCACAACCTGTGGCTCAGGCTCCAACCCCTGTCCCTGCCTT  
GGCCCCACTTCCACACCTGCATCCATCACTCCAGCATCAGCGACAGCATCTTCTGAACCTGCACCTGCT  
AGTGCAGCTAAACAAGAGAAGCCTGCAGAAAAGCCAGCAGAGACACCAGTGGCTACTAGCCCAACAGCAA  
CTGACAGTACATCGGGTATTCTTCTCGGTCAAACCTTTTTGAAGATGCAACGAGTGCACCTTGTGACGGG  
TCAGTCTTACGAGAATATGGTAAGTCAATGAGTCAATGGGCTATGAACGAGAGCAAGTAAATGCAGCC  
CTGAGAGCCAGTTTCAACAACCTGACAGAGCAGTGGAGTATCTTTAATGGGAATCCCTGGAGATAGAG  
AAAGTCAGGCTGTGGTTGACCCCTCAAGCAGTAGTACTGGGTTCTCAGTCTTCCAGCAGTGGCTGC  
AGCTGCAGCAACTACGACAGCAACAACACAACAAGTCTGGAGGACATCCCCTTGAATTTTTACGG  
AATCAGCCTCAGTTTCAACAGATGAGACAAATTTTTCAGCAGAATCCTTCTTCCAGCGTTACTAC  
AGCAGATAGTTCGAGAGAATCCTCAATTACTTTCAGCAAATTAGCCAACACCAGGAGCATTATTTTATCAGAT  
GTTAAATGAACAGTTCAAGAAGCTGGTGGTCAAGGAGGAGGAGTGGAGGTGGCAGTGGAGGAATTGCA  
GAAGCTGGAAGTGGTCATATGAACATCAAGTAAACCTCAGGAAAAAGAAGCTATAGAAAAGTTAA  
AGGCATTAGGATTTCTGAAGGACTTGTGATACAAGCGTATTTTCTTGTGAGAAGAATGAGAATTTGGC  
TGCCAATTTCTTCTACAGCAGAACTTTGATGAAGAT

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202185 protein sequence  
Red=Cloning site Green=Tags(s)

```

MQVTLKTLQQQTFKIDIDPEETVKALKEKIESEKGDAPFPVAGQKLIYAGKILNDDTALKEYKIDEKNFV
VVMVTKPKAVSTPAPATTQOSAPASTTAVTSSTTTTVAQPTPVPALAPTSTPASITPASATASSEPAPA
SAAKQEKPAEKPAETPVATSPTATDSTSGDSSRSNLFEDATSALVTGQSYENMVTEIMSMGYEREQVIAA
LRAFNNPDRAVEYLLMGIPGDRESQAVVDPQAASTGVPOSSAVAAAAATTTATTTTTSSGGHPLEFLR
NQPFQFQMRQIIQQNPSLLPALLQQIGRENPLLQQISQHQEHFIQMLNEPVQEAGGQGGGGGGGGIA
EAGSGHMNYIQVTPQEKEAIERLKALGFPEGLVIQAYFACEKNENLAANFLLQNFDED
  
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6004\\_b05.zip](https://cdn.origene.com/chromatograms/mk6004_b05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_002874

**ORF Size:** 1227 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\\_002874.5](#)

**RefSeq Size:** 4167 bp

**RefSeq ORF:** 1230 bp

**Locus ID:** 5887

**UniProt ID:** [P54727](#)

**Cytogenetics:** 9q31.2

**Domains:** UBA, UBQ, STI1

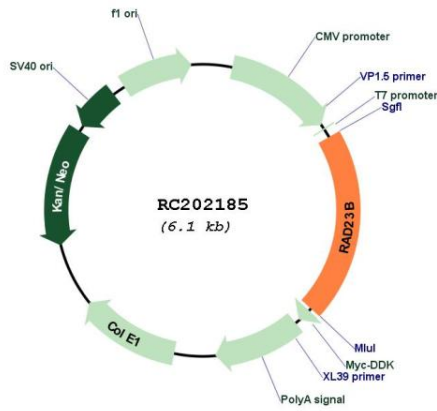
**Protein Families:** Druggable Genome

**Protein Pathways:** Nucleotide excision repair

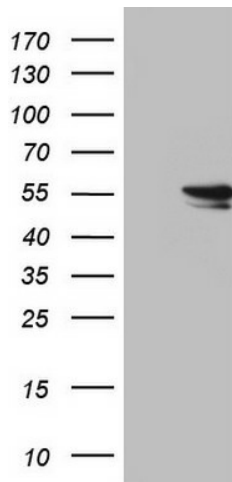
**MW:** 43.2 kDa

**Gene Summary:** The protein encoded by this gene is one of two human homologs of *Saccharomyces cerevisiae* Rad23, a protein involved in the nucleotide excision repair (NER). This protein was found to be a component of the protein complex that specifically complements the NER defect of xeroderma pigmentosum group C (XP-c) cell extracts in vitro. This protein was also shown to interact with, and elevate the nucleotide excision activity of 3-methyladenine-DNA glycosylase (MPG), which suggested a role in DNA damage recognition in base excision repair. This protein contains an N-terminal ubiquitin-like domain, which was reported to interact with 26S proteasome, and thus this protein may be involved in the ubiquitin mediated proteolytic pathway in cells. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Sep 2011]

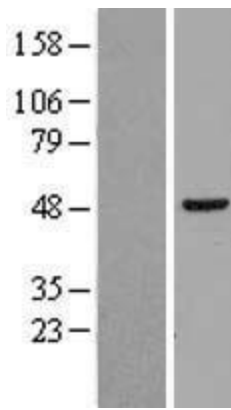
## Product images:



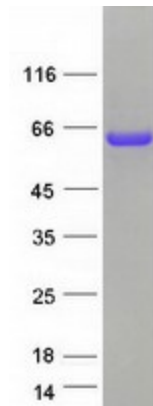
Circular map for RC202185



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RAD23B (Cat# RC202185, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RAD23B (Cat# [TA804867]). Positive lysates [LY401012] (100ug) and [LC401012] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401012]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202185 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAD23B protein (Cat# [TP302185]). The protein was produced from HEK293T cells transfected with RAD23B cDNA clone (Cat# RC202185) using MegaTran 2.0 (Cat# [TT210002]).