

**ERCC2 Blocking Peptide (C-term)**

Synthetic peptide

Catalog # BP21175a

**Specification**

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**ERCC2 Blocking Peptide (C-term) - Product Information**

Primary Accession

[P18074](#)**ERCC2 Blocking Peptide (C-term) - Additional Information**

Gene ID 2068

**Other Names**

TFIIH basal transcription factor complex helicase XPD subunit, Basic transcription factor 2 80 kDa subunit, BTF2 p80, CXPB, DNA excision repair protein ERCC-2, DNA repair protein complementing XP-D cells, TFIIH basal transcription factor complex 80 kDa subunit, TFIIH 80 kDa subunit, TFIIH p80, Xeroderma pigmentosum group D-complementing protein, ERCC2, XPD, XPB

**Target/Specificity**

The synthetic peptide sequence is selected from aa 687-702 of HUMAN ERCC2

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**ERCC2 Blocking Peptide (C-term) - Protein Information**

Name ERCC2

Synonyms XPD, XPB

**Function**

ATP-dependent 5'-3' DNA helicase, component of the general transcription and DNA repair factor IIH (TFIIH) core complex, which is involved in general and transcription-coupled nucleotide excision repair (NER) of damaged DNA and, when complexed to CAK, in RNA transcription by RNA polymerase II. In NER, TFIIH acts by opening DNA around the lesion to allow the excision of the damaged oligonucleotide and its replacement by a new DNA fragment. The ATP-dependent helicase activity of XPD/ERCC2 is required for DNA opening. In transcription, TFIIH has an essential role in transcription initiation. When the pre-initiation complex (PIC) has been established, TFIIH is required for promoter opening and promoter escape. Phosphorylation of the C-terminal tail (CTD) of the largest subunit of RNA polymerase II by the kinase module CAK controls the initiation of transcription. XPD/ERCC2 acts by forming a bridge between CAK and the core-TFIIH complex.

Involved in the regulation of vitamin-D receptor activity. As part of the mitotic spindle-associated MMXD complex it plays a role in chromosome segregation. Might have a role in aging process and could play a causative role in the generation of skin cancers.

**Cellular Location**

Nucleus. Cytoplasm, cytoskeleton, spindle

**ERCC2 Blocking Peptide (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**ERCC2 Blocking Peptide (C-term) - Images****ERCC2 Blocking Peptide (C-term) - Background**

ATP-dependent 5'-3' DNA helicase, component of the core- TFIIF basal transcription factor. Involved in nucleotide excision repair (NER) of DNA by opening DNA around the damage, and in RNA transcription by RNA polymerase II by anchoring the CDK-activating kinase (CAK) complex, composed of CDK7, cyclin H and MAT1, to the core-TFIIF complex. Involved in the regulation of vitamin-D receptor activity. As part of the mitotic spindle-associated MMXD complex it plays a role in chromosome segregation. Might have a role in aging process and could play a causative role in the generation of skin cancers.

**ERCC2 Blocking Peptide (C-term) - References**

Weber C.A.,et al.EMBO J. 9:1437-1447(1990).  
Lamerdin J.E.,et al.Genomics 34:399-409(1996).  
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Fletjer W.L.,et al.Proc. Natl. Acad. Sci. U.S.A. 89:261-265(1992).