

ERCC3 / XPB Antibody (aa242-261, clone 3G4)
Mouse Monoclonal Antibody
Catalog # ALS12491**Specification**

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - Product Information

Application	IHC
Primary Accession	P19447
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	89kDa KDa

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - Additional Information**Gene ID** 2071**Other Names**

TFIIH basal transcription factor complex helicase XPB subunit, 3.6.4.12, Basic transcription factor 2 89 kDa subunit, BTF2 p89, DNA excision repair protein ERCC-3, DNA repair protein complementing XP-B cells, TFIIH basal transcription factor complex 89 kDa subunit, TFIIH 89 kDa subunit, TFIIH p89, Xeroderma pigmentosum group B-complementing protein, ERCC3, XPB, XPBC

Target/Specificity

Recognizes an epitope located between aa242-261 of ERCC-3 (largest subunit of TFIIH).

Reconstitution & Storage

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

ERCC3 / XPB Antibody (aa242-261, clone 3G4) is for research use only and not for use in diagnostic or therapeutic procedures.

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - Protein Information**Name** ERCC3**Synonyms** XPB, XPBC**Function**

ATP-dependent 3'-5' DNA helicase, component of the general transcription and DNA repair factor IIF (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 ATPase activity of XPB/ERCC3, but not its helicase activity, is required for DNA opening. In transcription, TFIIH has an essential role in transcription initiation (PubMed:8157004, PubMed:30894545). When the pre-initiation complex (PIC) has been established, TFIIH is required for promoter opening and promoter escape (PubMed:8157004). The ATP-dependent helicase activity of XPB/ERCC3 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.

Cellular Location

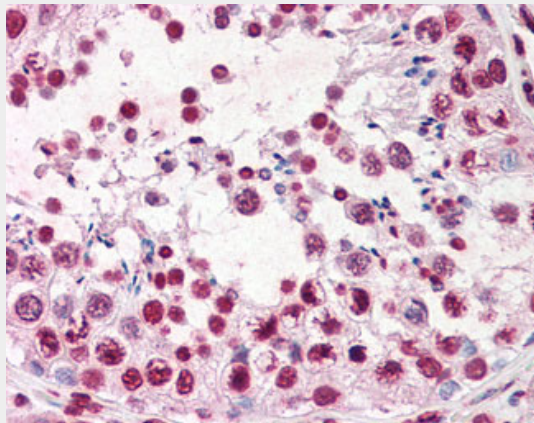
Nucleus.

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - Images



Anti-ERCC3 / XPB antibody IHC of human testis.

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - Background

ATP-dependent 3'-5' DNA helicase, component of the core- TFIIH basal transcription factor, involved in nucleotide excision repair (NER) of DNA and, when complexed to CAK, in RNA transcription by RNA polymerase II. Acts by opening DNA either around the RNA transcription start site or the DNA damage.

ERCC3 / XPB Antibody (aa242-261, clone 3G4) - References

Weeda G.,et al.Mol. Cell. Biol. 10:2570-2581(1990).
Weeda G.,et al.Cell 62:777-791(1990).
Weeda G.,et al.Nucleic Acids Res. 19:6301-6308(1991).
Hillier L.W.,et al.Nature 434:724-731(2005).

Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.