Product Name: XPG Rabbit Polyclonal Antibody
Catalog #: APRab19961
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Rat,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:10000
Molecular Weight	130kDa

Antigen Information

Gene Name	ERCC5
Alternative Names	ERCC5; ERCM2; XPG; XPGC; DNA repair protein complementing XP-G cells; DNA excision repair protein ERCC-5; Xeroderma pigmentosum group G-complementing protein
Gene ID	2073.0
SwissProt ID	P28715
Immunogen	The antiserum was produced against synthesized peptide derived from human ERCC5. AA range:131-180

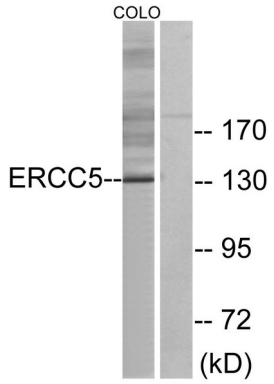
Background

This gene encodes a single-strand specific DNA endonuclease that makes the 3' incision in DNA excision repair following UV-induced damage. The protein may also function in other cellular processes, including RNA polymerase II transcription, and transcription-coupled DNA repair. Mutations in this gene cause xeroderma pigmentosum complementation group G (XP-G), which is also referred to as xeroderma pigmentosum VII (XP7), a skin disorder characterized by hypersensitivity to UV light and increased susceptibility for skin cancer development following UV exposure. Some patients also develop Cockayne syndrome, which is characterized by severe growth defects, mental retardation, and cachexia. Read-through transcription exists between this gene and the neighboring upstream BIVM (basic, immunoglobulin-like variable motif containing) gene. [provided by RefSeq, Feb 2011],cofactor:Binds 2 magnesium ions per subunit. They probably participate in the reaction catalyzed by the enzyme. May bind an additional third magnesium ion after substrate binding.,disease:Defects in ERCC5 are the cause of xeroderma pigmentosum complementation group G (XP-G) [MIM:278780]; also known as xeroderma pigmentosum VII (XP7). Xeroderma pigmentosum is an autosomal recessive pigmentary skin disorder characterized by solar hypersensitivity of the skin, high predisposition for developing cancers on areas exposed to sunlight and, in some cases, neurological abnormalities. Some XP-G patients present features of Cockayne syndrome, including dwarfism, sensorineural deafness, microcephaly, mental retardation, pigmentary retinopathy, ataxia, decreased nerve conduction velocities.,function:Single-stranded structure-specific DNA endonuclease involved in DNA excision repair. Makes the 3'incision in DNA nucleotide excision repair (NER). Acts as a cofactor for a DNA glycosylase that removes oxidized pyrimidines from DNA. May also be involved in transcription-coupled repair of this kind of damage, in transcription by RNA polymerase II, and perhaps in other processes too.,similarity:Belongs to the XPG/RAD2 endonuclease family. XPG subfamily.,subunit:Interacts with PCNA.,

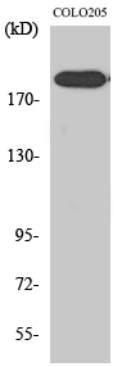
Research Area

Nucleotide excision repair;

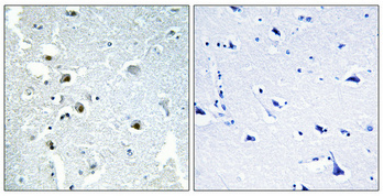
Image Data



Western blot analysis of lysates from COLO cells, using ERCC5 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using XPG Polyclonal Antibody diluted at 1： 2 000. Secondary antibody was diluted at 1:20000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit （SC-003,Inventbiotech,MN,USA）.



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100（4°,overnight）. High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl （right） obtaned from antibody was pre-absorbed by immunogen peptide.