

Anti-XPA Antibody

Catalog # AP51614

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P23025
Reactivity	Human, Mouse, Rat, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31368

Additional Information

Gene ID	7507
Other Names	XPAC; DNA repair protein complementing XP-A cells; Xeroderma pigmentosum group A-complementing protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human XPA. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	XPA
Synonyms	XPAC
Function	Involved in DNA nucleotide excision repair (NER). Initiates repair by binding to damaged sites with various affinities, depending on the photoproduct and the transcriptional state of the region. Required for UV-induced CHEK1 phosphorylation and the recruitment of CEP164 to cyclobutane pyrimidine dimmers (CPD), sites of DNA damage after UV irradiation (PubMed: 19197159). During NER stimulates the 5'-3' helicase activity of XPD/ERCC2 and the DNA translocase activity of XPB/ERCC3 (PubMed: 31253769). Connects XPD/ERCC2 and XPB/ERCC3 during NER, retaining DNA near the XPB/ERCC3 active site, and stabilizing the complex in a different conformation than in transcribing TFIIH (PubMed: 31253769).
Cellular Location	Nucleus

Tissue Location

Expressed in various cell lines and in skin fibroblasts.

References

Tanaka K.,et al.Nature 348:73-76(1990).

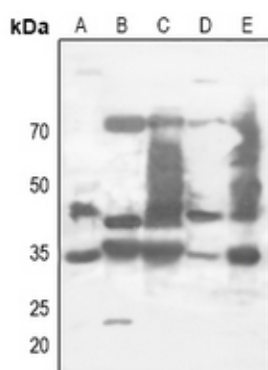
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

Humphray S.J.,et al.Nature 429:369-374(2004).

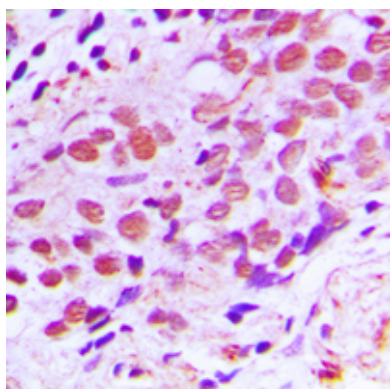
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Satokata I.,et al.Gene 136:345-348(1993).

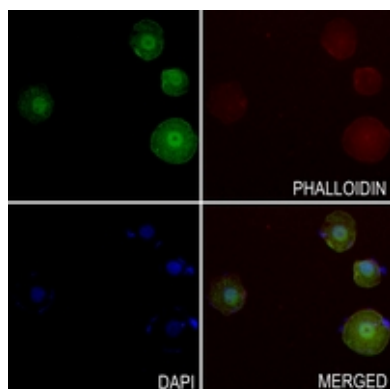
Images



Western blot analysis of XPA expression in HepG2 (A), mouse liver (B), mouse spleen (C), rat liver (D), rat spleen (E) whole cell lysates. (Predicted band size: 31 kD; Observed band size: 40 kD)



Immunohistochemical analysis of XPA staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of XPA staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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