abcam

Product datasheet

Anti-XPD antibody [4G2-2A6] ab54676

★★★★★ 1 Abreviews 17 References 画像数 3

製品の概要

製品名 Anti-XPD antibody [4G2-2A6]

製品の詳細 Mouse monoclonal [4G2-2A6] to XPD

由来種 Mouse

アプリケーション 適用あり: WB, Flow Cyt, IP

種交差性 交差種: Human

免疫原 Recombinant full length protein, corresponding to amino acids 1-406 of Human XPD

特記事項 This product was changed from ascites to tissue culture supernatant on 30th April 2019. Please

note that the dilutions may need to be adjusted accordingly. If you have any questions, please do

not hesitate to contact our scientific support team.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

バッファー pH: 7.40

精製度 Tissue culture supernatant

特記事項(精製) Purified from TCS.

ポリ/モノ モノクローナル

クローン名 4G2-2A6

アイソタイプ lgG1

軽鎖の種類 kappa

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The Abpromise guarantee

Abpromise保証は、次のテスト済みアプリケーションにおけるab54676の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★☆ (1)	Use at an assay dependent concentration. Predicted molecular weight: 87 kDa.
Flow Cyt		Use at an assay dependent concentration. <u>ab170190</u> - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.
IP		Use at an assay dependent concentration.

ターゲット情報

機能

ATP-dependent 5'-3' DNA helicase, component of the core-TFIIH 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-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.

関連疾患

Defects in ERCC2 are the cause of xeroderma pigmentosum complementation group D (XP-D) [MIM:278730]; also known as XP group D (XPD). 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-D patients present features of Cockayne syndrome, including dwarfism, sensorineural deafness, microcephaly, mental retardation, pigmentary retinopathy, ataxia, decreased nerve conduction velocities.

Defects in ERCC2 are a cause of trichothiodystrophy photosensitive (TTDP) [MIM:601675]. TTDP is an autosomal recessive disease characterized by sulfur-deficient brittle hair and nails, ichthyosis, mental retardation, impaired sexual development, abnormal facies and cutaneous photosensitivity correlated with a nucleotide excision repair (NER) defect. Neonates with trichothiodystrophy and ichthyosis are usually born with a collodion membrane. The severity of the ichthyosis after the membrane is shed is variable, ranging from a mild to severe lamellar ichthyotic phenotype. There are no reports of skin cancer associated with TTDP.

Defects in ERCC2 are the cause of cerebro-oculo-facio-skeletal syndrome type 2 (COFS2) [MIM:610756]. COFS is a degenerative autosomal recessive disorder of prenatal onset affecting the brain, eye and spinal cord. After birth, it leads to brain atrophy, hypoplasia of the corpus callosum, hypotonia, cataracts, microcornea, optic atrophy, progressive joint contractures and growth failure. Facial dysmorphism is a constant feature. Abnormalities of the skull, eyes, limbs, heart and kidney also occur.

配列類似性

Belongs to the helicase family. RAD3/XPD subfamily. Contains 1 helicase ATP-binding domain.

翻訳後修飾

ISGylated.

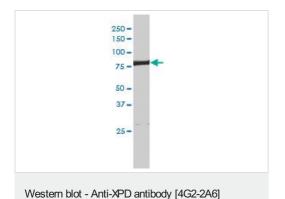
細胞内局在

Nucleus. Cytoplasm > cytoskeleton > spindle.

画像

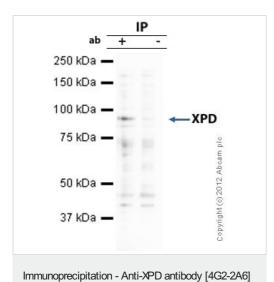
(ab54676)

(ab54676)



XPD antibody (ab54676) at 1ug/lane + HeLa cell lysate at 25ug/lane.

This image was generated using the ascites version of the product.



XPD was immunoprecipitated using 0.5mg Hela whole cell extract, 10µg of Mouse monoclonal to XPD and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).

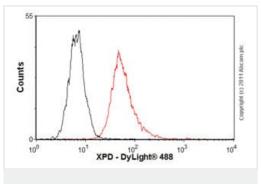
The antibody was incubated under agitation with Protein G beads for 10min, Hela whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

Proteins were eluted by addition of $40\mu l$ SDS loading buffer and incubated for 10min at $70^{\circ}C$; $10\mu l$ of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab54676.

Secondary: Goat polyclonal to mouse IgG light chain specific (HRP) at 1/5000 dilution.

Band: 150kDa: SMC1; Non specific - 41 and 42kDa: We are unsure as to the identity of this extra band.

This image was generated using the ascites version of the product.



Flow Cytometry - Anti-XPD antibody [4G2-2A6] (ab54676)

Overlay histogram showing HeLa cells stained with ab54676 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab54676, 1 μ g/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2 μ g/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

This image was generated using the ascites version of the product.

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