

# Anti-DDB2 antibody ab77765

7 References [画像数 3](#)

### 製品の概要

製品名	Anti-DDB2 antibody
製品の詳細	Rabbit polyclonal to DDB2
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB, IHC-P, ICC/IF
種交差性	<b>交差種:</b> Human
免疫原	Synthetic peptide corresponding to Human DDB2 aa 1-100 (N terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as <b>ab87818</b> )
ポジティブ・コントロール	This antibody gave a positive signal in the following whole cell lysates: Hela; A431.
特記事項	<p>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.</p> <p>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&amp;As</p>

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>Batches of this product that have a concentration &lt; 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p>
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル

## アプリケーション

**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ab77765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		Use a concentration of 1 µg/ml. Detects a band of approximately 47 kDa (predicted molecular weight: 47 kDa). Abcam recommends using milk as the blocking agent.
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 1 µg/ml.

## ターゲット情報

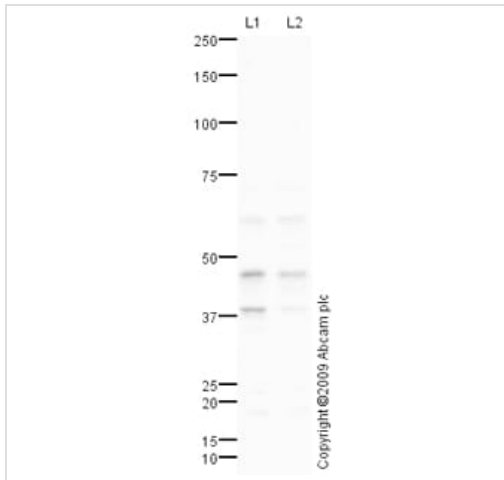
機能	Required for DNA repair. Binds to DDB1 to form the UV-damaged DNA-binding protein complex (the UV-DDB complex). The UV-DDB complex may recognize UV-induced DNA damage and recruit proteins of the nucleotide excision repair pathway (the NER pathway) to initiate DNA repair. The UV-DDB complex preferentially binds to cyclobutane pyrimidine dimers (CPD), 6-4 photoproducts (6-4 PP), apurinic sites and short mismatches. Also appears to function as the substrate recognition module for the DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex DDB1-CUL4-ROC1 (also known as CUL4-DDB-ROC1 and CUL4-DDB-RBX1). The DDB1-CUL4-ROC1 complex may ubiquitinate histone H2A, histone H3 and histone H4 at sites of UV-induced DNA damage. The ubiquitination of histones may facilitate their removal from the nucleosome and promote subsequent DNA repair. The DDB1-CUL4-ROC1 complex also ubiquitinates XPC, which may enhance DNA-binding by XPC and promote NER. Isoform D1 and isoform D2 inhibit UV-damaged DNA repair.
組織特異性	Ubiquitously expressed; with highest levels in corneal endothelium and lowest levels in brain. Isoform D1 is highly expressed in brain and heart. Isoform D2, isoform D3 and isoform D4 are weakly expressed.
パスウェイ	Protein modification; protein ubiquitination.
関連疾患	Defects in DDB2 are a cause of xeroderma pigmentosum complementation group E (XP-E) [MIM:278740]; also known as xeroderma pigmentosum V (XP5). XP-E is a rare human autosomal recessive disease characterized by solar sensitivity, high predisposition for developing cancers on areas exposed to sunlight and, in some cases, neurological abnormalities.
配列類似性	Belongs to the WD repeat DDB2/WDR76 family. Contains 5 WD repeats.
ドメイン	The DWD box is required for interaction with DDB1.
翻訳後修飾	Phosphorylation by ABL1 negatively regulate UV-DDB activity. Ubiquitinated by CUL4A in response to UV irradiation. Ubiquitination appears to both impair DNA-binding and promotes ubiquitin-dependent proteolysis. Degradation of DDB2 at sites of DNA damage may be a prerequisite for their recognition by XPC and subsequent repair. CUL4A-

mediated degradation appears to be promoted by ABL1.

## 細胞内局在

Nucleus. Accumulates at sites of DNA damage following UV irradiation.

## 画像



Western blot - Anti-DDB2 antibody (ab77765)

**All lanes :** Anti-DDB2 antibody (ab77765) at 1 µg/ml (5% Milk)

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 2 :** A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 47 kDa

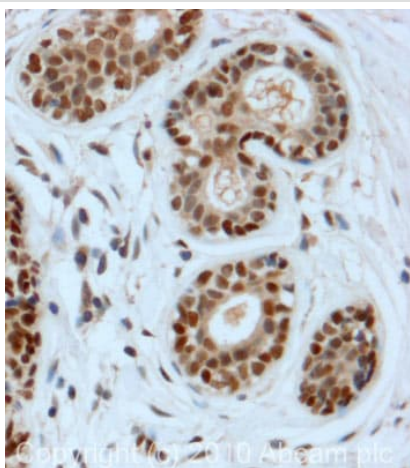
**Observed band size:** 47 kDa

**Additional bands at:** 40 kDa (possible isoform), 62 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 1 minute

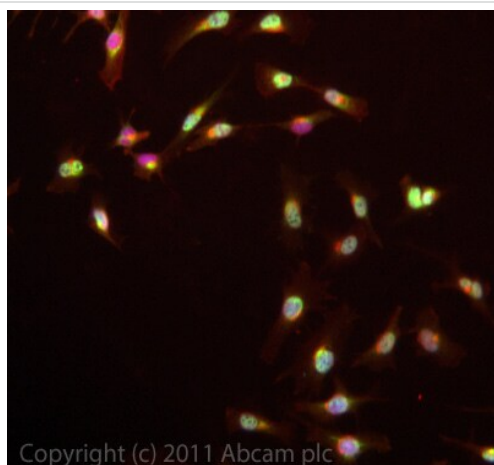
DNA damage-binding protein 2 has five isoforms of varying molecular weights (SwissProt). Isoform 1 is the antibody in question's primary target and is seen at 47 kDa, the additional band present at 40 kDa is also an isomer of DNA damage-binding protein 2 (Isomer D3).

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DDB2 antibody (ab77765)

IHC image of DDB2 staining in Human Breast Carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab77765, 5µg/ml, for 15 mins 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.



Immunocytochemistry/ Immunofluorescence - Anti-DDB2 antibody (ab77765)

ICC/IF image of ab77765 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab77765, 1µg/ml) overnight at +4°C. The secondary antibody (green) was [ab96899](#) Dylight 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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