# abcam

# Product datasheet

# Anti-DDB1 antibody [EPR6089] ab109027

ועלשעבע RabMAb

#### 21 References 画像数6

#### 製品の概要

製品名 Anti-DDB1 antibody [EPR6089]

製品の詳細 Rabbit monoclonal [EPR6089] to DDB1

由来種 Rabbit

アプリケーション 適用あり: ICC/IF, WB, IHC-P

適用なし: Flow Cyt

交差種: Mouse, Human 種交差性

交差が予測される動物種: Rat 🔷

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール HepG2, HeLa, NIH3T3, and Human platelet lysates, Human breast tissue. This antibody gave a

positive result when used in the following formaldehyde fixed cell lines: UV-treated HeLa

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

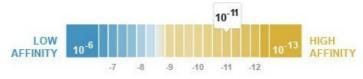
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb** patents.

# 製品の特性

製品の状態

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

解離定数(KD値)  $K_D = 8.40 \times 10^{-11} M$ 



Learn more about K<sub>D</sub>

**バッファー** pH: 7.20

Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue

culture supernatant

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** EPR6089

アイソタイプ IgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab109027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   |
|----------|-----------|--|
| ICC/IF   |           | 1/100.   |
| WB       |           | 1/50000 - 1/200000. Detects a band of approximately 130 kDa (predicted molecular weight: 127 kDa).   |
| IHC-P    |           | 1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. |

追加情報 Is unsuitable for Flow Cyt.

# ターゲット情報

機能

Required for DNA repair. Binds to DDB2 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 a component of numerous distinct DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins. The functional specificity of the DCX E3 ubiquitin-protein ligase complex is determined by the variable substrate recognition component recruited by DDB1. DCX(DDB2) (also known as DDB1-CUL4-ROC1, CUL4-DDB-ROC1 and CUL4-DDB-RBX1) 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. DCX(DDB2) also ubiquitinates XPC, which may enhance DNA-binding by XPC and promote NER. DCX(DTL) plays a role in PCNA-dependent polyubiquitination of CDT1 and MDM2dependent ubiquitination of TP53 in response to radiation-induced DNA damage and during DNA replication. DCX(ERCC8) (the CSA complex) plays a role in transcription-coupled repair (TCR). May also play a role in ubiquitination of CDKN1B/p27kip when associated with CUL4 and SKP2.

パスウェイ

Protein modification; protein ubiquitination.

配列類似性

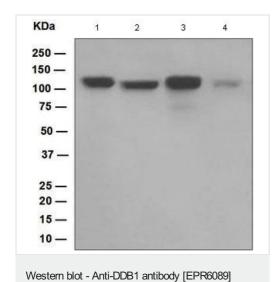
Belongs to the DDB1 family.

翻訳後修飾

Ubiquitinated by CUL4A. Subsequently degraded by ubiquitin-dependent proteolysis.

(ab109027)

### 画像

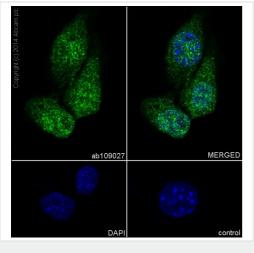


**All lanes :** Anti-DDB1 antibody [EPR6089] (ab109027) at 1/50000 dilution

Lane 1 : HepG2 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : NIH3T3 cell lysate
Lane 4 : Human platelet lysate

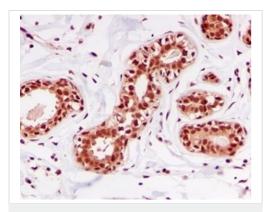
Lysates/proteins at 10 µg per lane.

Predicted band size: 127 kDa



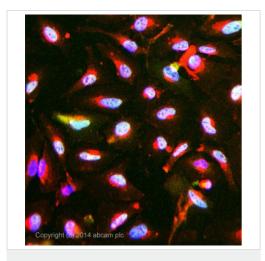
Immunocytochemistry/ Immunofluorescence - Anti-DDB1 antibody [EPR6089] (ab109027) Immunocytochemistry analysis of NIH/3T3 (mouse embryonic fibroblast) cells labeling DDB1 with ab109027 at 1/250 (8.9  $\mu$ g/mL). Cells were fixed with 4% Paraformaldehyde and permeabilised with 0.1% tritonX-100. **ab150077** AlexaFluor<sup>®</sup>488 Goat anti-Rabbit at 1/1000 (2  $\mu$ g/mL) was used as the secondary antibody. DAPI (blue) was used as nuclear counterstain.

Confocal image showing nuclear and cytoplasmic staining in NIH/3T3 cells.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-DDB1 antibody
[EPR6089] (ab109027)

Immunohistochemical analysis of paraffin-embedded Human breast tissue using ab109027 at a dilution of 1/100. Antigen retrieval was heat mediated before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-DDB1 antibody [EPR6089] (ab109027)

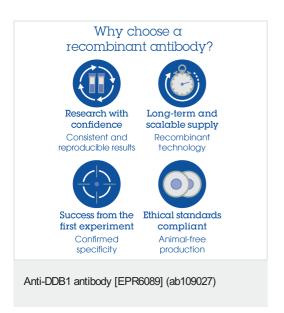
ab109027 stained UV-treated HeLa cells. The cells were 4% formaldehyde fixed for 10 minutes at room temperature and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab109027 at 1/100 dilution) overnight at +4°C. The secondary antibody (pseudocolored green) was  $\underline{ab150081}$  used at a 1/1000 dilution for 1hour at room temperature. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.

DDB1 EPR6089 9.0 8.0 Surface Density (ng/mm²) 7.0 \_ 3.7 nM 6.0 5.0 4.0 kon [1/(sec-M)] = (7.81 ± 0.03) E4 3.0 2.0 Kd [M] = (8.4 ± 0.1) E-11 1.0 Fit RMSE [ng/mm²] = 1.5 E-1 Median Baseline Noise [ng/mm²] = 1.5 E-1 Median Association Signal [ng/mm²] = 4.9 E0 Median Assoc. Endpoint SNR = 2.8 E1 RMSE / Noise = 9.9 E-1 0.0 -1.0 -2.0 60 135 Time (min)

OI-RD Scanning - Anti-DDB1 antibody [EPR6089] (ab109027)

Equilibrium disassociation constant ( $K_D$ ) Learn more about  $K_D$ 

# Click here to learn more about KD



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