

Product datasheet

Recombinant Human DDB2 protein ab91908

1 图像

概述

产品名称	重组人DDB2蛋白
蛋白长度	Protein fragment

描述

性质	Recombinant
来源	Escherichia coli

氨基酸序列

种属	Human
序列	MAPKKRPETQKTSEIVLRPRNKRSRSPLELEPEAKKLCAKGSGPSRRCDSDCLWVGLAGPQILPPCRSIVRTLHQHKLGRASWPSVQQGLQQSFLHTLDSYRILQKAAPFDRRATSLAWHPSTVAVGSKGGDIMLWNFGIKDKPTFIKGIGAGGSITGLKFNPLNTNQFYASSMEGTTRLQDFKGNILRVFASSDTI NIWFCSLDVSASSRMVVTGDNVGNVILLNMDGKELWNLRMHKKKVTHVALNPCCDWFLATA
氨基酸	1 to 261

技术指标

Our [Abpromise guarantee](#) covers the use of **ab91908** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	SDS-PAGE Mass Spectrometry
形式	Lyophilised
补充说明	Protein Identity confirmed by Mass Spectrometry (MS/MS) (acquired on initial reference batch)

制备和贮存

稳定性和存储	Shipped at 4°C. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. Preservative: None Constituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride,
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pH 4.5

复溶

Reconstitute with 59 µl aqua dest.

常规信息

功能

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.

组织特异性

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.

通路

Protein modification; protein ubiquitination.

疾病相关

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.

序列相似性

Belongs to the WD repeat DDB2/WDR76 family.
Contains 5 WD repeats.

结构域

The DWD box is required for interaction with DDB1.

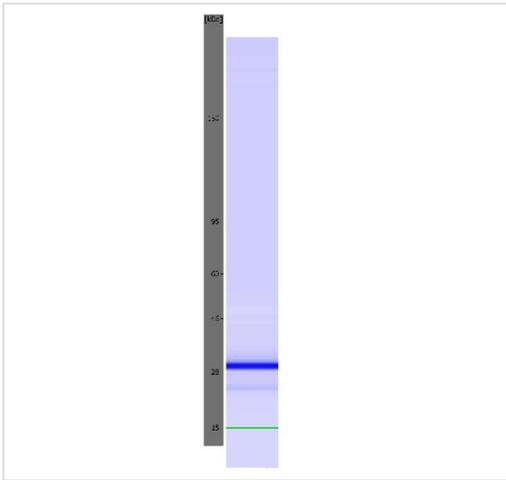
翻译后修饰

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.

细胞定位

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

图片



SDS-PAGE - DDB2 protein (Tagged-His Tag)
(ab91908)

The image shows an electrophoretic assay performed using an Agilent 5100 ALP. In some images coloured control bands can be seen at 15 kDa (green) and/or 240 kDa (purple). The protein-specific band is blue.

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