

ARG43706 anti-DDB1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes DDB1
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	DDB1
Species	Human
Immunogen	Synthetic peptide corresponding to Human DDB1.
Conjugation	Un-conjugated
Alternate Names	XPCE; XPCE; DDB p127 subunit; DDBa; UV-damaged DNA-binding factor; HBV X-associated protein 1; DDBA; UV-damaged DNA-binding protein 1; XPE; XAP-1; Damage-specific DNA-binding protein 1; XPE-BF; DNA damage-binding protein a; UV-DDB1; UV-DDB 1; XAP1; Xeroderma pigmentosum group E-complementing protein; XPE-binding factor; DNA damage-binding protein 1

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:100
	IP	1:10 - 1:25
	WB	1:500 - 1:1000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size ~ 128 kDa

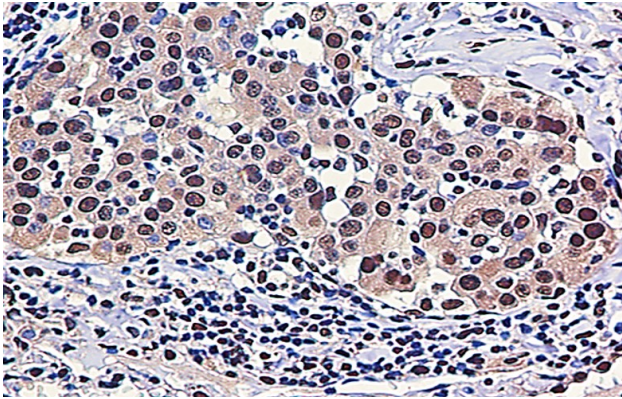
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	50 mM Tris-Glycine (pH 7.4), 150 mM NaCl, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA
Concentration	Batch dependent

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

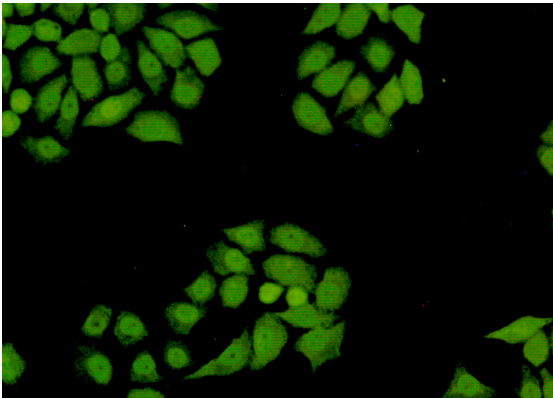
Bioinformation

Gene Symbol	DDB1
Gene Full Name	damage-specific DNA binding protein 1, 127kDa
Background	<p>The protein encoded by this gene is the large subunit (p127) of the heterodimeric DNA damage-binding (DDB) complex while another protein (p48) forms the small subunit. This protein complex functions in nucleotide-excision repair and binds to DNA following UV damage. Defective activity of this complex causes the repair defect in patients with xeroderma pigmentosum complementation group E (XPE) - an autosomal recessive disorder characterized by photosensitivity and early onset of carcinomas. However, it remains for mutation analysis to demonstrate whether the defect in XPE patients is in this gene or the gene encoding the small subunit. In addition, Best vitelliform macular dystrophy is mapped to the same region as this gene on 11q, but no sequence alternations of this gene are demonstrated in Best disease patients. The protein encoded by this gene also functions as an adaptor molecule for the cullin 4 (CUL4) ubiquitin E3 ligase complex by facilitating the binding of substrates to this complex and the ubiquitination of proteins. [provided by RefSeq, May 2012]</p>
Function	<p>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 MDM2-dependent 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. [UniProt]</p>
Calculated Mw	127 kDa
PTM	<p>Phosphorylated by ABL1.</p> <p>Ubiquitinated by CUL4A. Subsequently degraded by ubiquitin-dependent proteolysis. [UniProt]</p>
Cellular Localization	Cytoplasm, Nucleus. [UniProt]



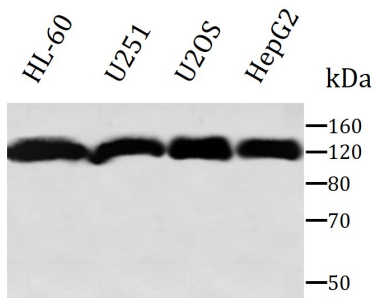
ARG43706 anti-DDB1 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human lung cancer stained with ARG43706 anti-DDB1 antibody at 1:100 dilution. Antigen Retrieval: Heat mediated was performed using sodium citrate buffer (pH 6.0).



ARG43706 anti-DDB1 antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG43706 anti-DDB1 antibody at 1:100 dilution.



ARG43706 anti-DDB1 antibody WB image

Western blot: HL-60, U251, U2OS and HepG2 cell lysates stained with ARG43706 anti-DDB1 antibody at 1:1000 dilution.