

# **Anti-DDB2 Antibody Picoband™**

Catalog Number: PB9757

#### **About DDB2**

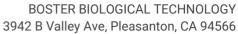
DNA damage-binding protein 2 is a protein that in humans is encoded by the DDB2 gene. This gene encodes a protein that is necessary for the repair of ultraviolet light-damaged DNA. This protein is the smaller subunit of a heterodimeric protein complex that participates in nucleotide excision repair, and this complex mediates the ubiquitylation of histones H3 and H4, which facilitates the cellular response to DNA damage. And this subunit appears to be required for DNA binding. Mutations in this gene cause xeroderma pigmentosum complementation group E, a recessive disease that is characterized by an increased sensitivity to UV light and a high predisposition for skin cancer development, in some cases accompanied by neurological abnormalities. Two transcript variants encoding different isoforms have been found for this gene.

#### Overview

Product Name	Anti-DDB2 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-DDB2 Antibody Picoband™ catalog # PB9757. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q92466

### **Technical Details**

Immunogen	E.coli-derived human DDB2 recombinant protein (Position: M1-T115). Human DDB2 shares 58.3% amino acid (aa) sequence identity with mouse DDB2.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized





Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.  If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.  Some PubMed article(s) citing the expression level of this target are as follows:  Boster Bio's internal QC testing used:  Western blot, 0.1-0.5ug/ml, Human  Immunocytochemistry/Immunofluorescence, 2ug/ml, Human  Flow Cytometry, 1-3ug/1x10 <sup>6</sup> cells, Human



## Anti-DDB2 Antibody Picoband™ (PB9757) Images

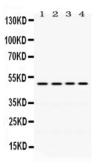


Figure 1. Western blot analysis of DDB2 using anti-DDB2 antibody (PB9757).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 40 ug of sample under reducing conditions.

Lane 1: A431 Whole Cell Lysate,

Lane 2: SW620 Whole Cell Lysate,

Lane 3: HELA Whole Cell Lysate,

Lane 4: JURKAT Whole Cell Lysate.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-DDB2 antigen affinity purified polyclonal antibody (Catalog # PB9757) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for DDB2 at approximately 48 kDa. The expected band size for DDB2 is at 48 kDa.

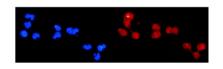


Figure 2. IF analysis of DDB2 using anti-DDB2 antibody (PB9757).

DDB2 was detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-DDB2 Antibody (PB9757) overnight at 4°C. DyLight®550 Conjugated Goat Anti-Rabbit IgG (BA1135) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

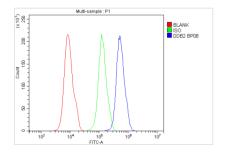


Figure 3. Flow Cytometry analysis of 293T cells using anti-DDB2 antibody (PB9757).

Overlay histogram showing 293T cells stained with PB9757 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DDB2 Antibody (PB9757,  $1ug/1x10^6$  cells) for 30 min at  $20^\circ$ C. DyLight 488 conjugated goat anti-rabbit IgG (BA1127, 5- $1ug/1x10^6$  cells) was used as secondary antibody for 30 minutes at  $20^\circ$ C. Isotype control antibody (Green line) was rabbit IgG ( $1ug/1x10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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