

Anti-Cullin 4B/CUL4B Antibody Picoband®

Catalog Number: PA1233

About CUL4B

Cullin 4B/CUL4B encodes a scaffold protein that organizes a cullin-RING (really interesting new gene) ubiquitin ligase (E3) complex in ubiquitylation. The CUL4 gene encodes a protein of 913 amino acids. The cullin domain is located between amino acid residues 217 and 815 and is characterized by a C-terminal globular domain (cullin homology domain) and a series of N-terminal repeats (cullin repeats). Ohtake et al. (2007) characterize a fat-soluble ligand-dependent ubiquitin ligase complex in human cell lines, in which dioxin receptor (AhR) is integrated as a component of a novel cullin 4B ubiquitin ligase complex, CUL4B (AhR). Complex assembly and ubiquitin ligase activity of CUL4B (AhR) in vitro and in vivo are dependent on the AhR ligand. In the CUL4B (AhR) complex, ligand-activated AhR acts as a substrate-specific adaptor component that targets sex steroid receptors for degradation. Their findings uncover a function for AhR as an atypical component of the ubiquitin ligase complex and demonstrate a non-genomic signalling pathway in which fat-soluble ligands regulate target-protein-selective degradation through a ubiquitin ligase complex.

Overview

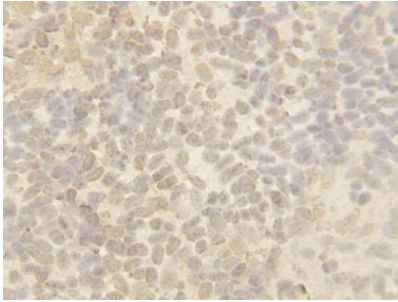
Product Name	Anti-Cullin 4B/CUL4B Antibody Picoband®
Reactive Species	Human, Mouse, Rat, Zebrafish
Description	Boster Bio Anti-Cullin 4B/CUL4B Antibody catalog # PA1233. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat, Zebrafish. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q13620

Technical Details

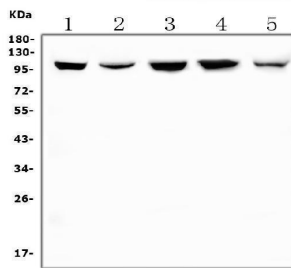
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cullin 4B, identical to the related rat and mouse sequences.
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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Zebrafish Western blot, 0.1-0.5ug/ml, Human, Rat, Zebrafish, Mouse

Anti-Cullin 4B/CUL4B Antibody Picoband® (PA1233) Images



Anti-Cullin 4B antibody, PA1233, IHC(P)IHC(P): Zebrafish Body Tissue



Western blot analysis of Cullin 4B using anti-Cullin 4B antibody (PA1233). 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 50ug of sample under reducing conditions. Lane 1: human Hela whole cell lysate, Lane 2: human A549 whole cell lysate, Lane 3: rat thymus tissue lysate, Lane 4: rat kidney tissue lysate, Lane 5: mouse kidney tissue lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Cullin 4B antigen affinity purified polyclonal antibody (Catalog # PA1233) 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 1:10000 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 Cullin 4B at approximately 104KD. The expected band size for Cullin 4B is at 104KD.

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