

Basic Information

Product Name	Anti-CUL4B Antibody	
Gene Name	CUL4B	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat, zebrafish	
Tested Application	WB, IHC	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cullin 4B, identical to the related rat and mouse sequences.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	104 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

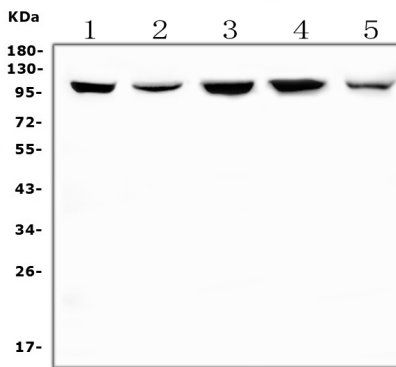
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

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.

Selected Validation Data



Western blot analysis of CUL4B using anti-CUL4B antibody (BA3374-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

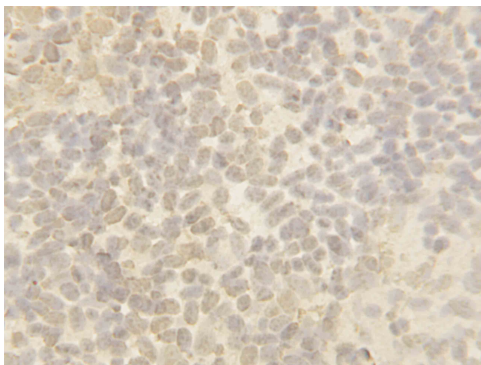
Lane 2: human A549 whole cell lysates,

Lane 3: rat thymus tissue lysates,

Lane 4: rat kidney tissue lysates,

Lane 5: mouse kidney tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CUL4B antigen affinity purified polyclonal antibody (BA3374-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CUL4B at approximately 104 kDa. The expected band size for CUL4B is at 104 kDa.



IHC analysis of CUL4B using anti-CUL4B antibody (BA3374-2).

CUL4B was detected in a paraffin-embedded section of zebrafish body tissue. The tissue section was incubated with rabbit anti-CUL4B Antibody (BA3374-2) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.