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[Marker Primary Antibody]

Rabbit Anti-CRBN/HRP Conjugated antibody

Catalog Number: SL11716R-HRP

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-CRBN/HRP
Immunogen:	KLH conjugated synthetic peptide derived from human CRBN (210-288aa)
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	ELISA=1:100-1000 IHC-P=1:50-200 IHC-F=1:50-200 ICC=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Rabbit,Zebrafish,Sheep)
Background:	background: CRBN is a 442 amino acid protein which is highly concentrated in human brain tissue. CRBN functions are thought to be related to energy metabolism, learning and memory. Localized to the cytoplasm, CRBN acts as a protease in mitochondria and is thought to regulate the assembly of KCNT1, as well as the surface expression of KCNT1 in brain regions known to affect memory and learning, such as the hippocampus. The gene encoding CRBN belongs to a family of ATP-dependent lon proteases that play a role in membrane trafficking and proteolysis. Defects in the CRBN gene are associated with mild mental retardation. **Function:** Protein cereblon modulates cell surface expression of KCNT1 and may be involved in memory and learning. It is highly expressed in brain and defects in CRBN are the cause of non syndromic mental retardation autosomal recessive type 2A (MRT2A) [MIM:607417]. Although it contains a Lon domain also found in proteases of the peptidase S16 family, it does not contain the ATP binding and catalytic domains, suggesting that it has no protease

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	activity. **Subunit:** Interacts with KCNT1 (By similarity). Component of a DCX (DDB1-CUL4-X-box) protein ligase complex, at least composed of CRBN, CUL4A, DDB1 and RBX1. **Subcellular Location:** Cytoplasm. Nucleus. Membrane; Peripheral membrane protein **Tissue Specificity:** Widely expressed. Highly expressed in brain. **Post-translational modifications:** Ubiquitinated, ubiquitination is mediated by its own DCX protein ligase complex. DISEASE: Defects in CRBN are the cause of mental retardation autosomal recessive type 2A (MRT2A) [MIM:607417]. MRT2A patients display mild mental retardation with a standard IQ ranged from 50 to 70. IQ scores are lower in males than females. Developmental milestones are mildly delayed. There are no dysmorphic or autistic features. Non-syndromic mental retardation patients do not manifest other clinical signs. **Similarity:** Belongs to the CRBN family. Contains 1 Lon domain. **Database links:** **Entrez Gene:** 51185 Human **Entrez Gene:** 58799 Mouse **Entrez Gene:** 297498 Rat **Entrez Gene:** 445491 Zebrafish GenBank: NM_016302.2 Human Omim: 607417 Human **SwissProt:** Q96SW2 Human **SwissProt:** Q8C7D2 Mouse **SwissProt:** Q56AP7 Rat **SwissProt:** Q68EH9 Zebrafish **Unigene:** 18925 Human **Unigene:** 290085 Mouse **Unigene:** 195259 Rat **Unigene:** 84847 Zebrafish Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.