

Active Recombinant Human CUL1/RBX1

Cat. No. CUL1-146H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human CUL1 (amino acid residues 1-776), RBX1 (amino acid residues 1-115) was expressed in Insect (Sf21) cells.

Species Human

Source Insect Cells

ProteinLength 1-776;1-115 a.a.

Description Cullin-RING-Ligases (CRLs) are one largest class of ubiquitin E3 ligases and the enzymes of the NEDDylation pathway play a pivotal role in the activation of these, akin to ubiquitylation, the E1 activating enzyme (APP-BP1/UBA3 heterodimer) and the E2 conjugating enzymes (UBE2M or UBE2F) are involved in mammalian NEDDylation of the Cullin Ring Ligases (CRLs) (Meyer-Schaller et al., 2009; Huang et al., 2011; Morimoto et al., 2003).

Form 50 mM HEPES pH 7.5, 150 mM sodium chloride, 2 mM dithiothreitol, 10% glycerol.

Bio-activity E3 Ligase Assay: The activity of Cul1/Rbx1 was validated indirectly through its ability to act as a substrate for Neddylation in the presence of the NEDD8 E3 ligase His-DCNL2 and thioester-loaded His-Ube2M-NEDD8. Incubation of Cul1/Rbx1 and thioester loaded His-Ube2M-NEDD8 in the presence or absence of His-DCNL2 at 4°C was compared at two time points T0 and T2 minutes. Neddylation of the Cul1 subunit in the presence of His-DCNL2 was demonstrated.

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Molecular Mass	Cul1: ~89.9 kDa; Rbx1: ~12.3 kDa
Purity	>95% by InstantBlue™ SDS-PAGE
Storage	12 months at -70°C. Avoid multiple freeze/thaw cycles.
Concentration	0.5 mg/ml

GENE INFORMATION

Gene Name	CUL1 cullin 1 [Homo sapiens]
Official Symbol	CUL1
Synonyms	CUL1; cullin 1; cullin-1; CUL-1; MGC149834; MGC149835;
Gene ID	8454
mRNA Refseq	NM_003592
Protein Refseq	NP_003583
MIM	603134
UniProt ID	Q13616
Chromosome Location	7q36.1
Pathway	APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem; Activation of NF-kappaB in B Cells, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem; Antigen processing: Ubiquitination and

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Proteasome degradation, organism-specific biosystem; Canonical Wnt signaling pathway, organism-specific biosystem; Cell Cycle, organism-specific biosystem;

Function

protein binding; ubiquitin protein ligase binding;

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