

Recombinant Mouse Commd1 Protein, Myc/DDK-tagged

Cat. No. Commd1-2246M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length COMM domain containing 1 (Commd1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Proposed scaffold protein that is implicated in diverse physiological processes and whose function may be in part linked to its ability to regulate ubiquitination of specific cellular proteins. Can modulate activity of cullin-RING E3 ubiquitin ligase (CRL) complexes by displacing CAND1; in vitro promotes CRL E3 activity and dissociates CAND1 from CUL1 and CUL2. Promotes ubiquitination of NF-kappa-B subunit RELA and its subsequent proteasomal degradation. Down-regulates NF-kappa-B activity. Involved in the regulation of membrane expression and ubiquitination of SLC12A2. Modulates Na⁺ transport in epithelial cells by regulation of apical cell surface expression of amiloride-sensitive sodium channel (ENaC) subunits and by promoting their ubiquitination presumably involving NEDD4L. Promotes the localization of SCNN1D to recycling endosomes. Promotes CFTR cell surface expression through regulation of its ubiquitination. Down-regulates SOD1 activity by interfering with its homodimerization. Plays a role in copper ion homeostasis. Involved in copper-dependent ATP7A trafficking between the trans-Golgi network and vesicles in the cell periphery; the function is proposed to depend on its association within the CCC complex and cooperation with the WASH complex on early endosomes. Can bind one copper ion per monomer. May function to facilitate biliary copper excretion within

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hepatocytes. Binds to phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P₂). Involved in the regulation of HIF1A-mediated transcription; competes with ARNT/Hif-1-beta for binding to HIF1A resulting in decreased DNA binding and impaired transcriptional activation by HIF-1. Negatively regulates neuroblastoma G1/S phase cell cycle progression and cell proliferation by stimulating ubiquitination of NF-kappa-B subunit RELA and NF-kappa-B degradation in a FAM107A- and actin-dependent manner.

Molecular Mass	21 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Commd1 COMM domain containing 1 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Commd1
Synonyms	COMMD1; COMM domain containing 1; COMM domain-containing protein 1; protein Murr1; U2af1-rs1 region 1; copper metabolism domain containing 1; Murr1; U2/Mu; AI256843
Gene ID	17846

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mRNA Refseq	NM_144514
Protein Refseq	NP_653097
UniProt ID	Q8K4M5

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