

COMMD1 Antibody (clone 2E2)
Mouse Monoclonal Antibody
Catalog # ALS17048**Specification**

COMMD1 Antibody (clone 2E2) - Product Information

Application	IHC, WB, FC
Primary Accession	Q8N668
Other Accession	150684
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Calculated MW	21178

COMMD1 Antibody (clone 2E2) - Additional Information**Gene ID** 150684**Other Names**

COMMD1, C2orf5, Protein Murr1, Copper metabolism gene MURR1, MURR1

Target/Specificity

Human COMMD1

Reconstitution & Storage

PBS, pH 7.3, 1% BSA, 50% glycerol, 0.02% sodium azide. Store at -20°C. Minimize freezing and thawing.

Precautions

COMMD1 Antibody (clone 2E2) is for research use only and not for use in diagnostic or therapeutic procedures.

COMMD1 Antibody (clone 2E2) - Protein Information**Name** COMMD1**Synonyms** C2orf5, MURR1**Function**

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 (PubMed:21778237). Promotes ubiquitination of NF-kappa-B subunit RELA and its subsequent proteasomal degradation. Down-regulates NF-kappa-B activity (PubMed:15799966, PubMed:15799966).

[17183367](http://www.uniprot.org/citations/17183367), PubMed: [20048074](http://www.uniprot.org/citations/20048074)). Involved in the regulation of membrane expression and ubiquitination of SLC12A2 (PubMed: [23515529](http://www.uniprot.org/citations/23515529)). 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 (PubMed: [14645214](http://www.uniprot.org/citations/14645214), PubMed: [20237237](http://www.uniprot.org/citations/20237237), PubMed: [21741370](http://www.uniprot.org/citations/21741370)). Promotes CFTR cell surface expression through regulation of its ubiquitination (PubMed: [21483833](http://www.uniprot.org/citations/21483833)). Down-regulates SOD1 activity by interfering with its homodimerization (PubMed: [20595380](http://www.uniprot.org/citations/20595380)). 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 (PubMed: [25355947](http://www.uniprot.org/citations/25355947)). Can bind one copper ion per monomer (PubMed: [17309234](http://www.uniprot.org/citations/17309234)). May function to facilitate biliary copper excretion within hepatocytes. Binds to phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P2) (PubMed: [18940794](http://www.uniprot.org/citations/18940794)). 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 (PubMed: [20458141](http://www.uniprot.org/citations/20458141)). 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 (PubMed: [28604741](http://www.uniprot.org/citations/28604741)).

Cellular Location

Nucleus. Cytoplasm Endosome membrane. Cytoplasmic vesicle. Early endosome. Recycling endosome Note=Shuttles between nucleus and cytosol. Detected in perinuclear foci that may be aggresomes containing misfolded, ubiquitinated proteins

Tissue Location

Ubiquitous. Highest expression in the liver, with lower expression in brain, lung, placenta, pancreas, small intestine, heart, skeletal muscle, kidney and placenta. Down-regulated in cancer tissues.

Volume

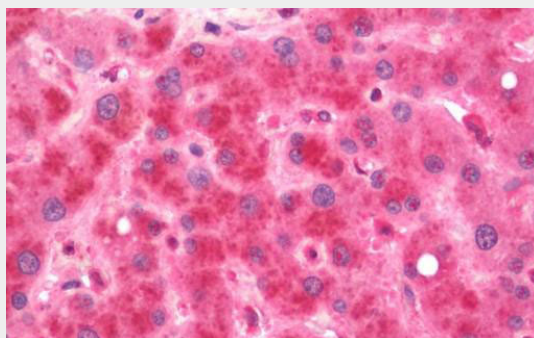
50 µl

COMMD1 Antibody (clone 2E2) - Protocols

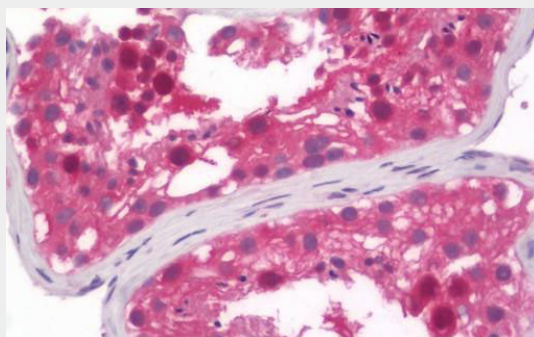
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

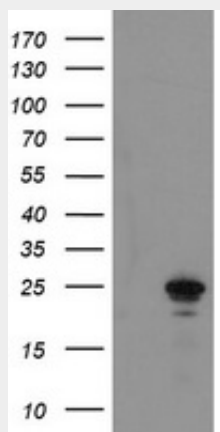
- [Cell Culture](#)

COMMD1 Antibody (clone 2E2) - Images

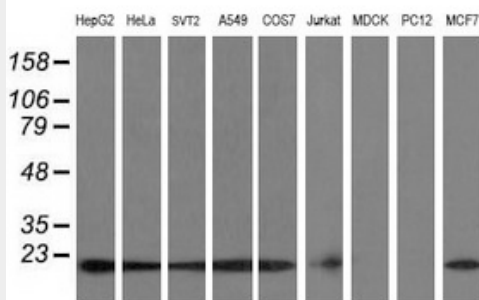
Human Liver: Formalin-Fixed, Paraffin-Embedded (FFPE)



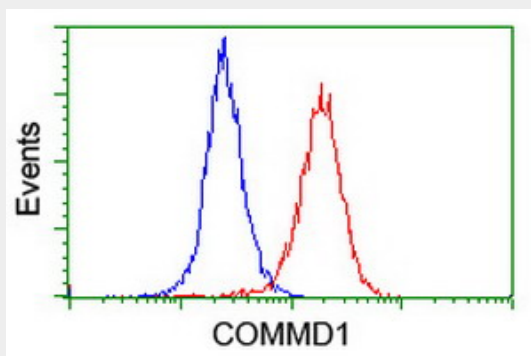
Human Testis: Formalin-Fixed, Paraffin-Embedded (FFPE)



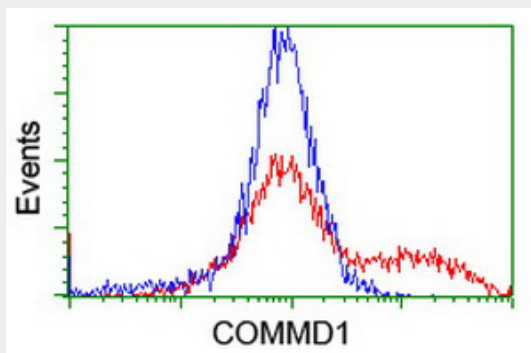
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY COMMD1...



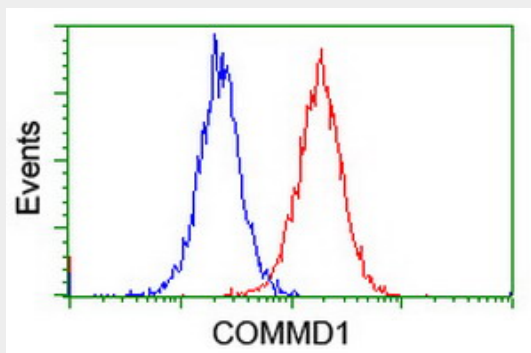
Western blot of extracts (35 ug) from 9 different cell lines by using g anti-COMMD1 monoclonal...



Flow cytometry of HeLa cells, using anti-COMMD1 antibody (Red), compared to a nonspecific...



HEK293T cells transfected with either overexpress plasmid (Red) or empty vector control plasmid...



Flow cytometry of Jurkat cells, using anti-COMMD1 antibody (Red), compared to a nonspecific...

COMMD1 Antibody (clone 2E2) - Background

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 (PubMed:21778237). Promotes ubiquitination of NF-kappa-B subunit RELA and its subsequent proteasomal degradation. Down-regulates NF-kappa-B activity (PubMed:15799966, PubMed:17183367, PubMed:20048074). Involved in the regulation of membrane expression and ubiquitination of SLC12A2 (PubMed:23515529). 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 (PubMed:14645214, PubMed:20237237, PubMed:21741370). Promotes CFTR cell surface expression through regulation of its ubiquitination (PubMed:21483833). Down-regulates SOD1 activity by interfering with its homodimerization (PubMed:20595380). 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 (PubMed:25355947). Can bind one copper ion per monomer (PubMed:17309234). May function to facilitate biliary copper excretion within hepatocytes. Binds to phosphatidylinositol 4,5- bisphosphate (PtdIns(4,5)P2) (PubMed:18940794). 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 (PubMed:20458141).

COMMD1 Antibody (clone 2E2) - References

Mueller T.,et al.J. Hepatol. 38:164-168(2003).
Stuehler B.,et al.J. Mol. Med. 82:629-634(2004).
Zhang Z.,et al.Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Hillier L.W.,et al.Nature 434:724-731(2005).