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UCHL1 / PGP9.5 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52772

Specification

UCHL1 / PGP9.5 Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P09936
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b**
Calculated MW	**25 KDa**

UCHL1 / PGP9.5 Antibody - Additional Information

Gene ID 7345

Other Names
UCHL1 / PGP9.5;UCHL1;B220;CD 45;CD45;cd45 antigen;ec3.1.3.48;GP 180;GP180;Human homolog of severe combined immunodeficiency due to PTPRC deficiency;L CA;L-CA;lca;Leukocyte common antigen;LY 5;LY5;Protein tyrosine phosphatase receptor type C;Protein tyrosine phosphatase receptor type c polypeptide;PTPRC;PTPRC_HUMAN;Receptor-type tyrosine-protein phosphatase C;SCID due to PTPRC deficiency;t200;T200 glycoprotein;T200 leukocyte common antigen.

Dilution
WB~~1:1000
ICC~~1:300

Format
Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50% glycerol

Storage
Store at -20 °C.Stable for 12 months from date of receipt

UCHL1 / PGP9.5 Antibody - Protein Information

Name UCHL1

Function
Deubiquitinase that plays a role in the regulation of several processes such as maintenance of synaptic function, cardiac function, inflammatory response or osteoclastogenesis (PubMed:22212137, PubMed:23359680). Abrogates the ubiquitination of multiple proteins including WWTR1/TAZ, EGFR, HIF1A and beta-site amyloid precursor protein cleaving enzyme 1/BACE1 (PubMed:22212137, PubMed:<a

href="http://www.uniprot.org/citations/25615526" target="_blank">25615526). In addition, recognizes and hydrolyzes a peptide bond at the C-terminal glycine of ubiquitin to maintain a stable pool of monoubiquitin that is a key requirement for the ubiquitin-proteasome and the autophagy- lysosome pathways (PubMed:9774100, PubMed:8639624, PubMed:12408865). Regulates amyloid precursor protein/APP processing by promoting BACE1 degradation resulting in decreased amyloid beta production (PubMed:22212137). Plays a role in the immune response by regulating the ability of MHC I molecules to reach cross-presentation compartments competent for generating Ag-MHC I complexes (By similarity). Mediates the 'Lys-48'-linked deubiquitination of the transcriptional coactivator WWTR1/TAZ leading to its stabilization and inhibition of osteoclastogenesis (By similarity). Deubiquitinates and stabilizes epidermal growth factor receptor EGFR to prevent its degradation and to activate its downstream mediators (By similarity). Modulates oxidative activity in skeletal muscle by regulating key mitochondrial oxidative proteins (By similarity). Enhances the activity of hypoxia-inducible factor 1-alpha/HIF1A by abrogateing its VHL E3 ligase-mediated ubiquitination and consequently inhibiting its degradation (PubMed:25615526).

Cellular Location
Cytoplasm. Endoplasmic reticulum membrane; Lipid- anchor. Note=About 30% of total UCHL1 is associated with membranes in brain. Localizes near and/or within mitochondria to potentially interact with mitochondrial proteins {ECO:0000250|UniProtKB:Q9R0P9}

Tissue Location
Found in neuronal cell bodies and processes throughout the neocortex (at protein level). Expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. Weakly expressed in ovary. Down-regulated in brains from Parkinson disease and Alzheimer disease patients.

UCHL1 / PGP9.5 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

UCHL1 / PGP9.5 Antibody - Images

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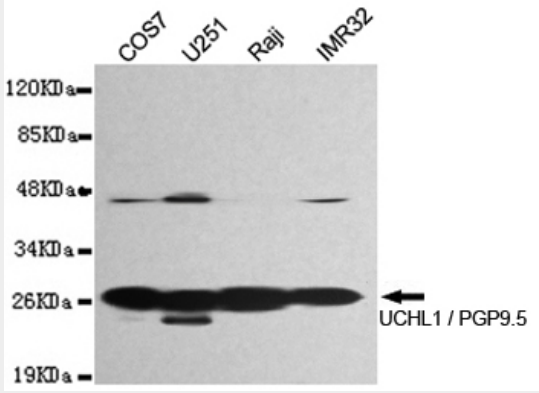
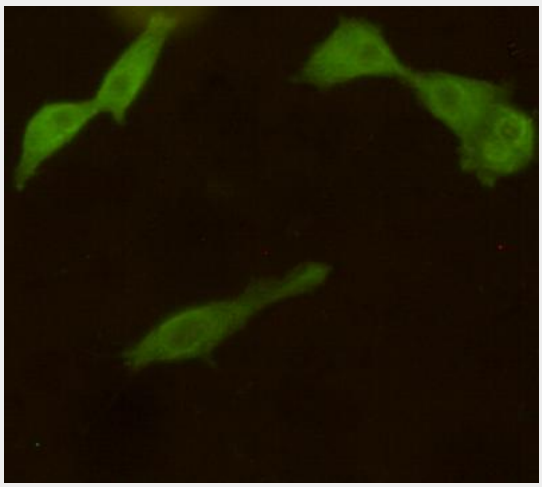


Western blot detection of UCHL1 / PGP9.5 in U251,IMR32,Raji and COS7 cell lysates and using UCHL1 / PGP9.5 mouse mAb (1:1000 diluted).Predicted band size: 25KDa.Observed band size: 28KDa.



Immunocytochemistry stain of COS7 using UCHL1 / PGP9.5 mouse mAb (1:300).

UCHL1 / PGP9.5 Antibody - Background

Ubiquitin-protein hydrolase involved both in the processing of ubiquitin precursors and of ubiquitinated proteins. This enzyme is a thiol protease that recognizes and hydrolyzes a peptide bond at the C-terminal glycine of ubiquitin. Also binds to free monoubiquitin and may prevent its degradation in lysosomes. The homodimer may have ATP-independent ubiquitin ligase activity.

UCHL1 / PGP9.5 Antibody - References

Hillier L.W.,et al.Nature 434:724-731(2005).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Day I.N.M.,et al.Biochem. J. 268:521-524(1990).
Choi J.,et al.J. Biol. Chem. 279:13256-13264(2004).
Lubec G.,et al.Submitted (DEC-2008) to UniProtKB.