

Product datasheet for **TA336532**

PGP9.5 (UCHL1) Chicken Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:10000, IF: 1:1000
Reactivity:	Human, Rat
Host:	Chicken
Isotype:	IgY
Clonality:	Polyclonal
Immunogen:	Recombinant full length human UCHL1 purified from E. coli. [UniProt# P09936]
Formulation:	PBS, 0.03% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Ammonium sulfate precipitation
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	27 kDa
Gene Name:	ubiquitin C-terminal hydrolase L1
Database Link:	NP_004172 Entrez Gene 29545 Rat Entrez Gene 7345 Human P09936

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Background:

UCH-L1 (ubiquitin carboxyl-terminal hydrolase isozyme L1) was the first discovered de-ubiquitinating enzyme which implicates in processing of ubiquitin precursors and also of ubiquitinated proteins. UCH-L1 is a thiol protease that recognizes and hydrolyzes a peptide bond at C-terminal glycine of ubiquitin. It also binds to free monoubiquitin and prevents its degradation in lysosomes. Localized in cytoplasm and ER membrane as lipid-anchor, UCH-L1 expression is restricted to brain, peripheral nerves, endocrine tissues and gonads of both sexes etc. UCH-L1 deletion in mice leads to fatal neurodegenerative disorder known as gracile axonal dystrophy and it is down-regulated in brains from Parkinson as well as Alzheimer disease patients. Expression outside of neuro-endocrine tissues is found in various cancers including B-cell lymphoma, multiple myeloma, and lung cancer. In transgenic mouse model, UCH-L1 has been demonstrated as an oncogene that causes malignancies by boosting AKT signalling. Furthermore, UCH-L1 has been shown to interfere with ubiquitination of RAPTOR which is catalyzed by DDB1-Cul4 E3 ligase complex, leading to loss of mTORC1 integrity accompanied by a concurrent increase in mTORC2, likely due to increased availability of free mTOR.

Synonyms:

HEL-117; NDGOA; PARK5; PGP 9.5; PGP9.5; PGP95; Uch-L1

Note:

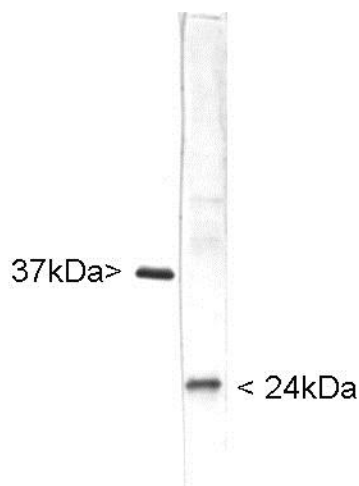
This UCHL1 antibody is useful for Immunocytochemistry/Immunofluorescence and Western blotting, where a band is seen at ~27 kDa. Use in Immunohistochemistry-Frozen reported in scientific literature (PMID 24190886)

Protein Families:

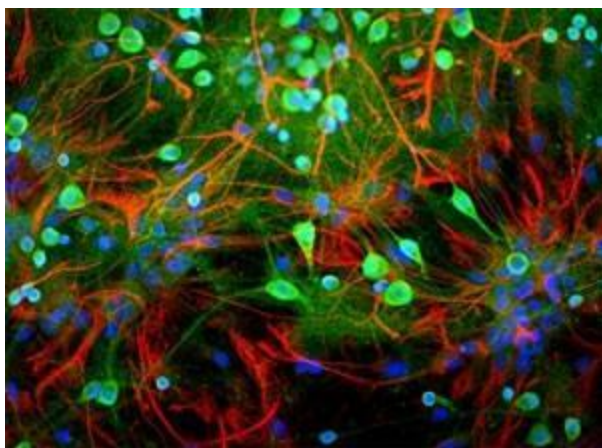
Druggable Genome, Protease

Protein Pathways:

Parkinson's disease

Product images:


Western Blot: PGP9.5 / UCHL-1 Antibody
TA336532 - Blots of whole cell homogenate of the human SH-SY5Y neuroblastoma cell line stained with chicken antibody to glyceraldehyde 3 phosphate dehydrogenase (GAPDH, left lane, blot made with monoclonal antibody)



Immunocytochemistry/Immunofluorescence:
PGP9.5 / UCHL-1 Antibody TA336532 - Shows rat mixed neuron/glia cultures stained with chicken UCHL1 (green) and rabbit antibody to glial fibrillary acidic protein (GFAP-red), NB300-141. Blue is a DNA stain. Note