

## Product datasheet for **TA321632**

### PGP9.5 (UCHL1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:500-2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein corresponding to C terminal 165 amino acids of human ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)
Formulation:	PBS pH7.3, 0.05% NaN <sub>3</sub> , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	25 kDa
Gene Name:	ubiquitin C-terminal hydrolase L1
Database Link:	<a href="#">NP_004172</a> <a href="#">Entrez Gene 22223 Mouse</a> <a href="#">Entrez Gene 29545 Rat</a> <a href="#">Entrez Gene 7345 Human</a> <a href="#">P09936</a>



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**Background:**

Protein ubiquitination and deubiquitination are reversible processes catalyzed by ubiquitinating enzymes (UBEs) and deubiquitinating enzymes (DUBs). DUBs are categorized into 5 subfamilies: USP, UCH, OTU, MJD, and JAMM. UCHL1, UCHL3, UCHL5/UCH37, and BRCA-1-associated protein-1 (BAP1) belong to the UCH family of DUBs, which all possess a conserved catalytic domain (UCH domain) of about 230 amino acids. UCHL5 and BAP1 have unique extended C-terminal tails. UCHL1 is abundantly expressed in neuronal tissues and testes, while UCHL3 expression is more widely distributed. Although UCHL1 and UCHL3 are the most closely related UCH family members with about 53% identity, their biochemical properties differ in that UCHL1 binds monoubiquitin and UCHL3 shows dual specificity toward both ubiquitin (Ub) and NEDD8, a Ub-like molecule. In particular, UCHL3 functions as a Ub hydrolase involved in the processing of both Ub precursors and ubiquitinated substrates, generating free monomeric Ub. This is accomplished through the ability of UCHL3 to recognize and hydrolyze isopeptide bonds at the C-terminal glycine of either Ub or NEDD8. Recent functional studies have identified UCH-L3 as a critical regulator of adipogenesis through its ability to promote IGF-IR and insulin receptor signaling. Furthermore, UCHL3 has been shown to promote deubiquitination, recycling, and cell surface expression of the epithelial sodium channel.

**Synonyms:**

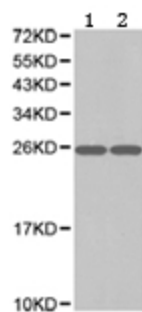
HEL-117; NDGOA; PARK5; PGP 9.5; PGP9.5; PGP95; Uch-L1

**Protein Families:**

Druggable Genome, Protease

**Protein Pathways:**

Parkinson's disease

**Product images:**

Predicted band size: 25 kDa. Positive control: A549 and Y79 cell lysate. Recommended dilution: 1/500-2000. (Gel: 10%SDS-PAGE Lane 1: A549 cell lysate Lane 2: Y79 cell lysate Lysates: 40 ug per lane Primary antibody: 1/500 dilution Secondary antibody: Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution Exposure time: 1 minute)