

## Mouse PGP9. 5 Monoclonal Antibody | anti-UCHL1 antibody

Anti-PGP9. 5 Antibody (monoclonal, 3E4)

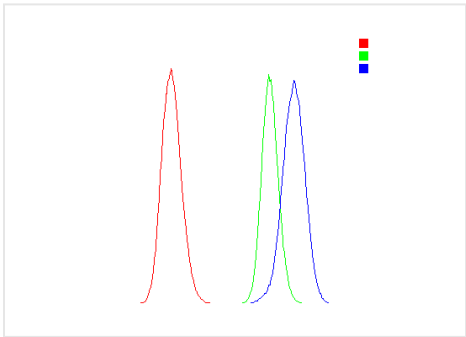
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|-------------------------------|----------------------|----------------------------------------|---------------------------------------------------------------------------------------------|
| CATALOG #<br><b>AAA125913</b> | HOST<br><b>Mouse</b> | REACTIVITY<br><b>Human, Mouse, Rat</b> | APPLICATIONS<br><b>Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot</b> |
|-------------------------------|----------------------|----------------------------------------|---------------------------------------------------------------------------------------------|

### PRODUCT SYNONYMS

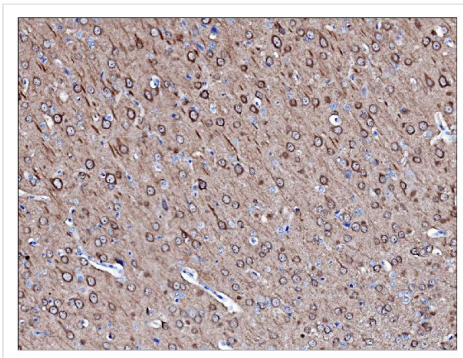
PGP9. 5; Monoclonal Antibody; Anti-PGP9. 5 Antibody (monoclonal; 3E4); UCHL1; Ubiquitin carboxyl-terminal hydrolase isozyme L1; UCH-L1; EC 3. 4. 19. 12; Neuron cytoplasmic protein 9. 5; PGP 9. 5; Ubiquitin thioesterase L1; ubiquitin C-terminal hydrolase L1; anti-UCHL1 antibody

### PRODUCT SPECIFICATIONS

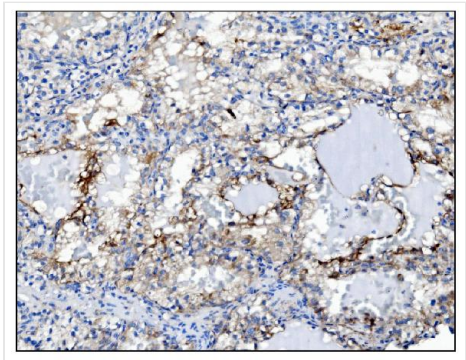
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|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Mouse                                                                                                                                                                                                      |
| Reactivity                                      | Human, Mouse, Rat                                                                                                                                                                                          |
| Clonality                                       | Monoclonal                                                                                                                                                                                                 |
| Isotype                                         | Mouse IgG1                                                                                                                                                                                                 |
| Clone Number                                    | 30000                                                                                                                                                                                                      |
| Specificity                                     | Mouse IgG monoclonal antibody for PGP9. 5 detection.                                                                                                                                                       |
| Purity/Purification                             | Immunogen affinity purified.                                                                                                                                                                               |
| Form/Format                                     | Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.                                                                                                                               |
| Applicable Applications for anti-UCHL1 antibody | FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                                   |
| Immunogen                                       | A synthetic peptide corresponding to a sequence at the C-terminus of human PGP9. 5 (120-153aa ETEKMSPEDRAKCFEKNEAIQAAHDAVAQEGQCR), different from the related mouse and rat sequences by two amino acids.  |
| Reconstitution                                  | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                                                                                                       |
| Recommended Detection Systems                   | Recommended Detection Systems                                                                                                                                                                              |
| Preparation and Storage                         | Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing. |



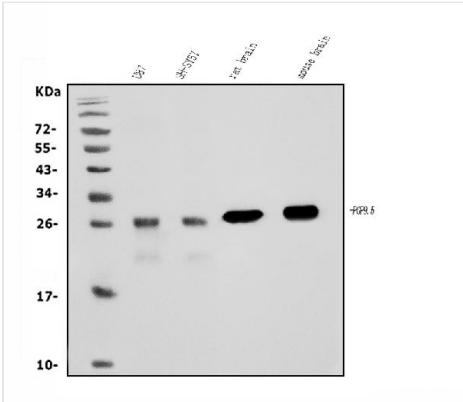
**FCM/FACS (Flow Cytometry)**  
Figure 4. Flow Cytometry analysis of 293T cells using anti-PGP9. 5 antibody (AAA125913).Overlay histogram showing 293T cells stained with AAA125913 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-PGP9. 5 Antibody (AAA125913, 1&mu;g/1x106 cells) for 30 min at 20 degree C. DyLight&reg;488 conjugated goat anti-mouse IgG (BA1126, 5-10&mu;g/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1&mu;g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



**IHC (Immunohistochemistry)**  
Figure 3. IHC analysis of PGP9. 5 using anti-PGP9. 5 antibody (AAA125913).PGP9. 5 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2&mu;g/ml mouse anti-PGP9. 5 Antibody (AAA125913) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



**IHC (Immunohistochemistry)**  
Figure 2. IHC analysis of PGP9. 5 using anti-PGP9. 5 antibody (AAA125913).PGP9. 5 was detected in paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2&mu;g/ml mouse anti-PGP9. 5 Antibody (AAA125913) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



**WB (Western Blot)**  
Figure 1. Western blot analysis of PGP9. 5 using anti-PGP9. 5 antibody (AAA125913).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions.Lane 1: human U87 whole cell lysatesLane 2: human SH-SY5Y whole cell lysatesLane 3: rat brain tissue lysatesLane 4: mouse brain tissue lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with mouse anti- PGP9. 5 antigen affinity purified monoclonal antibody (Catalog # AAA125913) at 0. 5 &mu;g/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PGP9. 5 at approximately 27KD. The expected band size for PGP9. 5 is at 27KD.

ADDITIONAL INFORMATION

|                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-UCHL1 antibody</b> | UCH-L1, also known as PGP9. 5, is a member of a gene family whose products hydrolyze small C-terminal adducts of ubiquitin to generate the ubiquitin monomer. Expression of UCH-L1 is highly specific to neurons and to cells of the diffuse neuroendocrine system and their tumors. It is abundantly present in all neurons (accounts for 1-2% of total brain protein), expressed specifically in neurons and testis/ovary. The catalytic triad of UCH-L1 contains a cysteine at position 90, an aspartate at position 176, and a histidine at position 161 that are responsible for its hydrolase activity. |
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|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | 1. "Entrez Gene: UCHL1 ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)".<br>2. Das C, Hoang QQ, Kreinbring CA, Luchansky SJ, Meray RK, Ray SS, Lansbury PT, Ringe D, Petsko GA (Mar 2006). "Structural basis for conformational plasticity of the Parkinson's disease-associated ubiquitin hydrolase UCH-L1". Proceedings of the National Academy of Sciences of the United States of America 103 (12): 4675-80.<br>3. Doran JF, Jackson P, Kynoch PA, Thompson RJ (Jun 1983). "Isolation of PGP 9. 5, a new human neurone-specific protein detected by high-resolution two-dimensional electrophoresis". Journal of Neurochemistry 40 (6): 1542-7. |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 21361091                                                                                                                                    |
| NCBI GeneID                      | 7345                                                                                                                                        |
| NCBI Accession #                 | NP_004172.2                                                                                                                                 |
| NCBI GenBank Nucleotide #        | NM_004181.4                                                                                                                                 |
| UniProt Accession #              | P09936; Q4W5K6; Q71UM0                                                                                                                      |
| Molecular Weight                 | 24,824 Da                                                                                                                                   |
| NCBI Official Full Name          | ubiquitin carboxyl-terminal hydrolase isozyme L1                                                                                            |
| NCBI Official Synonym Full Names | ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)                                                                           |
| NCBI Official Symbol             | UCHL1                                                                                                                                       |
| NCBI Official Synonym Symbols    | PARK5; PGP95; PGP9.5; Uch-L1; PGP 9.5                                                                                                       |
| NCBI Protein Information         | ubiquitin carboxyl-terminal hydrolase isozyme L1; ubiquitin thioesterase L1; neuron cytoplasmic protein 9.5; ubiquitin C-terminal hydrolase |
| UniProt Protein Name             | Ubiquitin carboxyl-terminal hydrolase isozyme L1                                                                                            |
| UniProt Gene Name                | UCHL1                                                                                                                                       |
| UniProt Synonym Gene Names       | UCH-L1; PGP9.5                                                                                                                              |
| UniProt Entry Name               | UCHL1_HUMAN                                                                                                                                 |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.