

PGP9.5 Monoclonal Antibody (AF3F8)

Catalog NumberMA5-17235

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse, Rat
Host/Isotope	Mouse / IgG1, kappa	Tested Applications	Dilution *
Class	Monoclonal		
Type	Antibody		
Clone	AF3F8	ELISA (ELISA)	Assay-dependent
Immunogen	Recombinant human protein purified from E.coli (GST-UCHL1)	Western Blot (WB)	0.5 µg/mL
Conjugate	Unconjugated	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Form	liquid		
Concentration	1 mg/mL		
Storage Conditions	-20°C		

Product specific information

A suggested positive control for this product is SK-N-MC cells.

Background/Target Information

PGP9.5 (Protein gene product 9.5, UCH-L1, PARK5) is a neuron specific protein, structurally and immunologically distinct from neuron specific enolase. PGP9.5 has a molecular weight of 27 kDa and was first identified by high resolution two dimensional PAGE. PGP9.5 is a member of ubiquitin carboxyl-terminal hydrolase family 1 (peptidase family C12) with a ubiquitin carboxyl-terminal hydrolase domain. PGP9.5 is well known for having ubiquitin hydrolase and ligase activities that hydrolyzes small C-terminal adducts of ubiquitin to generate ubiquitin monomers. PGP9.5 is present in neurons and nerve fibers at all levels of the central and peripheral nervous system, in neuroendocrine cells, in segments of the renal tubules, in spermatogonia and Leydig cells of the testis, in ova and in some cells of both the pregnant and non-pregnant corpus luteum. Over expression of PGP9.5 leads to non-small cell lung cancer while decreased expression leads to Huntington disease and Alzheimer disease. Since PGP9.5 is present in cellular inclusions, it can be a useful as a neuronal marker and in the studies of neurodegenerative disorders such as with Parkinson disease.

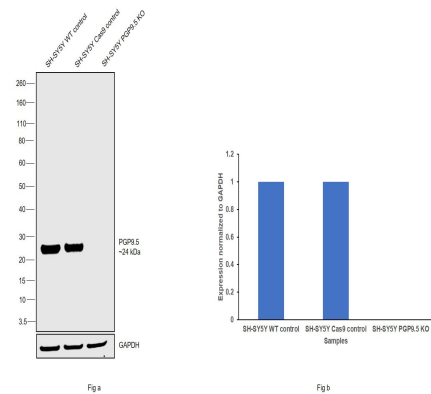
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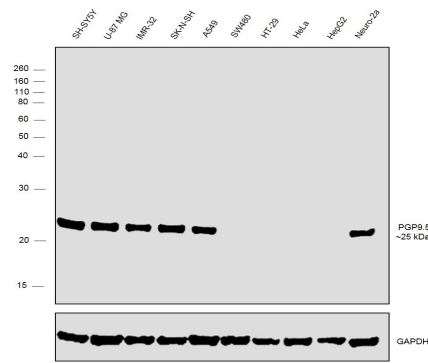
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PGP9.5 Antibody (MA5-17235)



Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in PGP9.5/UCHL1 (KO) cell line compared to control cell line using Anti-PGP9.5/UCHL1 Monoclonal Antibody (Product # MA5-17235). [Knockout validation info.](#)

PGP9.5 Antibody (MA5-17235)



Antibody specificity was demonstrated by detection of differential basal expression of the target across cells owing to their inherent genetic constitution. Relative expression of PGP9.5 was observed in SH-SY5Y, U-87 MG, IMR-32 and SK-N-SH cell lines and not in SW480, HT-29, HeLa and HepG2 cell lines using PGP9.5 Monoclonal Antibody (Product # MA5-17235) in western blot. [Relative expression validation info.](#)

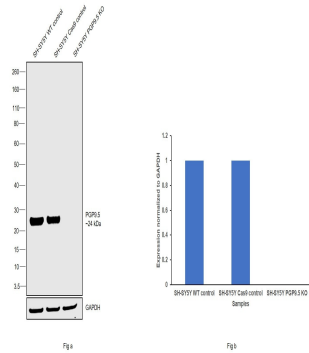
Product Images For PGP9.5 Monoclonal Antibody (AF3F8)

PGP9.5 Antibody (MA5-17235) in WB

Western blot was performed using Anti-PGP9.5 Monoclonal Antibody, (Product # MA5-17235) and a ~25 kDa band corresponding to PGP9.5 was observed across the panel tested except SW480, HT-29, HeLa and HepG2 which are reported to be negative. Whole cell extracts (30 µg lysate) of SH-SY5Y (Lane 1), U-87 MG (Lane 2), IMR-32 (Lane 3), SK-N-SH (Lane 4), A549 (Lane 5), SW480 (Lane 6), HT-29 (Lane 7), HeLa (Lane 8), HepG2 (Lane 9) and Neuro-2a (Lane 10) were electrophoresed using Novex® NuPAGE® 12% % Bis-Tris gel (Product # NP0341BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (0.5 µg/ml) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005)..

PGP9.5 Antibody (MA5-17235) in WB

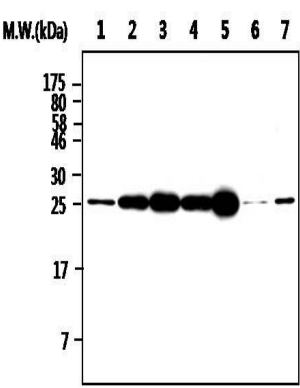
Western blot analysis of PGP9.5/UCHL1 was performed by loading 20 µg of SH-SY5Y wild type (Lane 1), SH-SY5Y Cas9 control (Lane 2), SH-SY5Y PGP9.5/UCHL1 knockout (Lane 3) whole cell extracts. The blot was probed with Anti-PGP9.5/ UCHL1 Monoclonal Antibody (Product # MA5-17235) (0.5 µg/mL) and Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177) (1:4000 dilution). Loss of signal upon CRISPR mediated knockout (KO) confirms that antibody is specific to PGP9.5/UCHL1.



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**PGP9.5 Antibody (MA5-17235) in WB**

Western blot analysis of UCHL1 using anti-UCHL1 monoclonal antibody (Product # MA5-17235) on (Lane 1) U87mg Cell lysate, (Lane 2) SH-DY5Y Cell lysate, (Lane 3) SK-N-MC Cell lysate, (Lane 4) SK-N-SH Cell lysate, (Lane 5) IMR32 Cell lysate, (Lane 6) PC12 Cell lysate and (Lane 6) Mouse Brain.

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