ARG52466
anti-UCHL1 / PGP9.5 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Chicken Polyclonal antibody recognizes UCHL1 / PGP9.5
Tested Reactivity	Hu, Ms, Rat
Predict Reactivity	Mamm
Tested Application	ICC/IF, WB
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Target Name	UCHL1 / PGP9.5
Species	Human
Immunogen	Recombinant full length human UCHL1 purified from E. coli
Conjugation	Un-conjugated
Alternate Names	PGP95; UCH-L1; PGP9.5; PARK5; Ubiquitin thioesterase L1; HEL-117; Neuron cytoplasmic protein 9.5; Uch-L1; EC 6.-.-.-; PGP 9.5; Ubiquitin carboxyl-terminal hydrolase isozyme L1; NDGOA; EC 3.4.19.12

Application Instructions

Application table

Application	Dilution
ICC/IF	1:500 - 1:1000
WB	1:1000 - 1:5000

Application Note: Specific for the ~24kDa UCHL1 protein.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

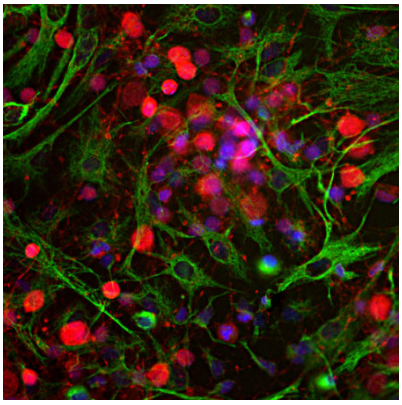
Properties

Form	Liquid
Purification	Total IgY fraction
Buffer	Total IgY fraction in PBS and 10 mM Sodium azide
Preservative	10 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	UCHL1
Gene Full Name	ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)
Background	Ubiquitin C-terminal hydrolase 1 (UCHL1) is also known as ubiquitin carboxyl esterase L1, ubiquitin thiolesterase, neuron-specific protein PGP9.5 and Park5. It was originally identified as a major component of the neuronal cytoplasm from 2-dimensional gel analysis of brain tissues, and was given the name PGP9.5 . It was later found that ubiquitin C-terminal hydrolase enzyme activity was associated with the PGP9.5 protein . The ubiquitin C-terminal hydrolases cleave ubiquitin from other molecules. Regulation of the ubiquitin pathway is very important and many disease states are associated with defects in this pathway. Genetic knockout of UCHL1 in mice results in a motor neuron degeneration similar to the spontaneous gracile axonal dystrophy (gad) mutant mice . Point mutations in the UCHL1 gene are associated with some forms of human Parkinson's disease . Since UCHL1 is heavily expressed in neurons, it is released in large amounts following injury or degeneration, so the detection of UCHL1 in CSF and other bodily fluids can be used as a biomarker.
Research Area	Cell Biology and Cellular Response antibody; Gene Regulation antibody; Neuroscience antibody
Calculated Mw	25 kDa
PTM	O-glycosylated.

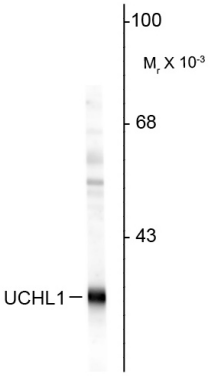
Images



ARG52466 anti-UCHL1 / PGP9.5 antibody ICC/IF image

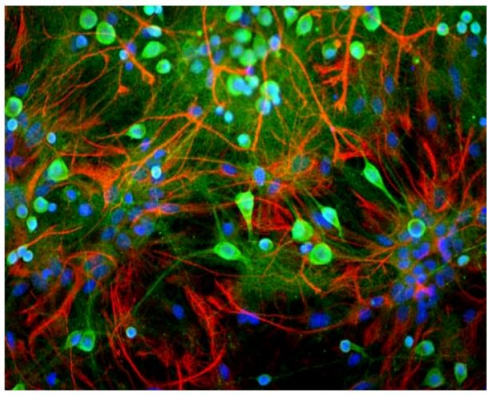
Immunofluorescence: Cortical neuron-glial cell culture from E20 Rat stained with ARG52466 anti-UCHL1 / PGP9.5 antibody (red) at 1:500 dilution, and costained with anti-Vimentin antibody (green) at 1:2000 dilution. DAPI (blue) for nuclear staining.

The UCHL1 antibody produces strong staining of the cell body and dendrites in neurons. The Vimentin antibody stains intermediate filaments in fibroblastic and developing glial cells.



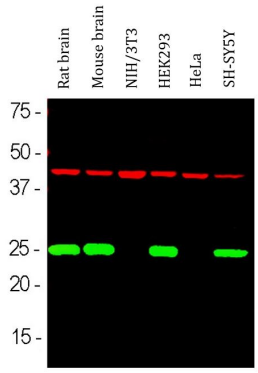
ARG52466 anti-UCHL1 / PGP9.5 antibody WB image

Western blot: Rat hippocampal homogenate stained with ARG52466 anti-UCHL1 / PGP9.5 antibody showing specific immunolabeling of the ~ 24k UCHL1 protein.



ARG52466 anti-UCHL1 / PGP9.5 antibody ICC/IF image

Immunofluorescence: Rat mixed neuron/glial cultures stained with ARG52466 anti-UCHL1 / PGP9.5 antibody (green) and ARG52312 rabbit anti-GFAP antibody (red). Blue is a DNA stain.



ARG52466 anti-UCHL1 / PGP9.5 antibody WB image

Western blot: Rat brain, Mouse brain, NIH/3T3, HEK293, HeLa and SH-SY5Y cell lysates stained with ARG52466 anti-UCHL1 / PGP9.5 antibody (green) at 1:2000 dilution and anti-Actin antibody (red) at 1:1000 dilution.

The single band at 24 kDa mark corresponds to UCHL1 protein which is detectable in CNS extracts and lysates of cells with neuronal properties but not in lysates of HeLa, NIH/3T3 and other non-neuronal cells. Actin is detected with apparent molecular weight of 42 kDa and provides an loading control.