



**Catalog Number:** CH22140

**Host:** Chicken

**Product Type:** Chicken Polyclonal

**Species Reactivity:** Human, Rat, Mouse, Cow, Pig, Horse

**Immunogen Sequence:** Recombinant full length human UCHL1 expressed in and purified from *E. coli*.

**Format:** Supplied as an aliquot of IgY preparation plus 5mM NaN3

**Applications:** Immunofluorescence: 1:500-1,000  
Immunohistochemistry: 1:500-1,000  
Western Blot: 1:2,000-5,000

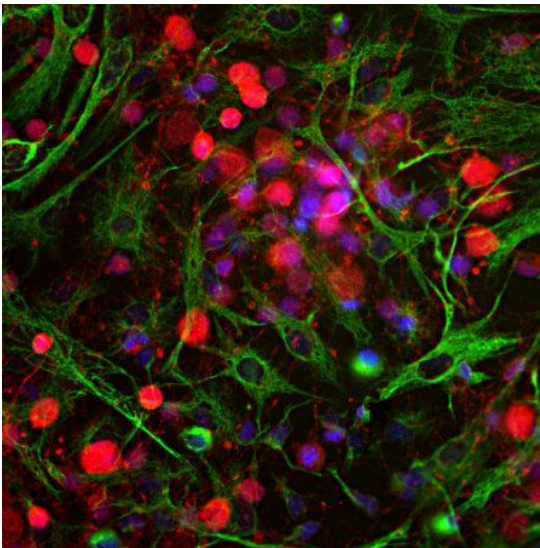
Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.

**Storage:** The antibody can be stored at 2° - 8° C for 12 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.

### Application Notes

#### Description/Data

Ubiquitin C-terminal hydrolase 1 (UCHL1) is an extremely abundant protein of brain, where it is localized only in neurons. It was originally named PGP9.5 and discovered as a major protein spot on 2D gels of brain extracts which was absent on similar gels of other tissues. Later it was found that the PGP9.5 protein was an enzyme which could cleave ubiquitin monomers from ubiquitin conjugates and polyubiquitin chains, resulting in recycling of ubiquitin monomers and the renaming of PGP9.5 to UCHL1 to reflect this enzymatic activity. UCHL1 is an essential enzyme and defects in UCHL1 protein expression are involved in Parkinson's disease (PD) and other more serious disease states. In addition, UCHL1 may be released into cerebrospinal fluid (CSF) and blood following CNS damage and disease resulting in neuronal loss.



This antibody was made against full length recombinant human UCHL1 expressed in and purified from *E. coli* and can be used to identify neurons and their processes in culture or in sections. The antibody works cleanly on appropriate lysates of cell and tissues. Considerable interest has been focused on the detection of UCHL1 in the blood and CSF of patients with traumatic injuries to the brain or spinal cord. This antibody has been widely used as both a capture and a detection reagent in ELISA type assays for measuring UCHL1 levels in blood and CSF samples.

*Image: Immunofluorescent analysis of cortical neuron-glia cell culture from E20 rat stained with chicken pAb to UCHL1, CH22140, dilution 1:500 in red, and costained with mouse mAb to vimentin, dilution 1:2,000, in green. The blue is Hoechst staining of nuclear DNA. 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.*

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