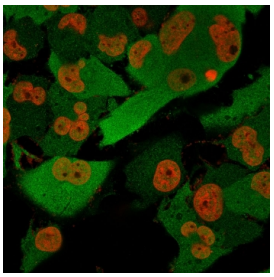
PGP9.5 Antibody / UCHL1 Protein IF Antibody [clone SPM574] (V9096)

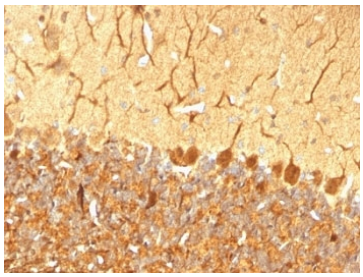
Catalog No.	Formulation	Size
V9096-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V9096-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V9096SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V9096IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

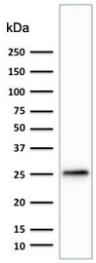
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SPM574
Purity	Protein G affinity chromatography
UniProt	P09936
Localization	Cytoplasmic. Endoplasmic Reticulum membrane
Applications	Western Blot : 1-2ug/ml Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This anti-PGP9.5 antibody is available for research use only.



PGP9.5 Antibody for IF. Immunofluorescence analysis in human T98G tumor cells. Permeabilized human T98G cells stained with PGP9.5 Antibody for IF, also known as UCHL1 Protein IF Antibody and Ubiquitin C-terminal hydrolase L1 antibody, show strong cytoplasmic fluorescence (green) with diffuse and perinuclear distribution consistent with deubiquitinase-associated localization in cancer cells. Nuclear counterstain with Nucspot (red) highlights nuclei. Detection was performed using mouse monoclonal clone SPM574, supporting visualization of UCHL1 expression and cytoplasmic protein distribution in tumor cell populations.



IHC: Formalin-fixed, paraffin-embedded rat cerebellum stained with anti-PGP9.5 antibody (clone SPM574).



Western blot testing of human brain lysate with anti-PGP9.5 antibody (clone SPM574). Predicted molecular weight ~25 kDa.

Description

Protein gene product 9.5 (PGP9.5), also known as Ubiquitin C-terminal hydrolase L1 (UCHL1), is a cytoplasmic deubiquitinating enzyme that regulates ubiquitin recycling and protein degradation pathways in cells. The PGP9.5 Antibody for IF is specifically optimized for immunofluorescence analysis of tumor cells, enabling clear visualization of cytoplasmic UCHL1 expression and supporting studies focused on cancer biology, protein turnover, and deubiquitinase-driven signaling mechanisms.

PGP9.5 Antibody for IF, also referred to as UCHL1 antibody or ubiquitin C-terminal hydrolase L1 antibody, is widely used in immunofluorescence imaging of cancer cells where it produces strong cytoplasmic fluorescence with diffuse and perinuclear staining patterns. In IF applications, this antibody highlights intracellular protein distribution within tumor cells, making it particularly useful for analyzing cellular heterogeneity, cytoplasmic protein accumulation, and tumor-associated signaling activity.

This mouse monoclonal PGP9.5 Antibody for IF (clone SPM574) provides high specificity and reproducible fluorescence signal in cancer-focused IF workflows. Monoclonal antibody design ensures defined epitope recognition and low background, which is essential for accurate visualization of cytoplasmic staining in tumor cell populations. The antibody supports detection in fixed and permeabilized cells, enabling detailed imaging of UCHL1 distribution within malignant cells and comparison across tumor models.

UCHL1 functions as a key deubiquitinase that maintains ubiquitin homeostasis and regulates protein stability, processes that are frequently dysregulated in cancer. Altered UCHL1 expression has been reported in multiple tumor types, where it contributes to tumor progression, survival signaling, and cellular stress responses. In immunofluorescence studies, UCHL1 typically appears as strong cytoplasmic fluorescence with variable intensity across tumor cells, reflecting differences in expression levels and functional state.

A mouse monoclonal PGP9.5 Antibody for IF is ideally suited for tumor-focused immunofluorescence applications, including cytoplasmic protein localization in cancer cells, analysis of deubiquitinase activity, and imaging-based studies of ubiquitin-mediated regulatory pathways. Its strong cytoplasmic fluorescence and tumor-relevant staining patterns make it a valuable tool for cancer research and cellular imaging workflows.

Application Notes

The optimal dilution of the PGP9.5 Antibody / UCHL1 Protein IF Antibody for each application should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Native UchL1/PGP9.5 protein isolated from human brain was used as the immunogen for this PGP9.5 Antibody / UCHL1 Protein IF Antibody.

Storage

Store the anti-PGP9.5 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

UCHL1 antibody, PGP9.5 protein antibody, Ubiquitin C-terminal hydrolase L1 antibody, Neuronal ubiquitin hydrolase antibody