

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human UCH-L1/PGP9.5 in direct ELISAs. Detects human, mouse, and rat in Western blot.
Source	Monoclonal Mouse IgG _{2B} Clone # 972119
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human UCH-L1/PGP9.5 Gln2-Ala223 Accession # P09936
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

UCH-L1 (ubiquitin carboxyterminal hydrolase isozyme 1; also PGP9.5) is a 24-27 kDa member of the peptidase C12 family of enzymes. It shows restricted expression, being found in neurons and oocytes. UCH-L1 has dual enzymatic activity. As a monomer, it is a ubiquitin hydrolase that removes ubiquitin from modified proteins; as a homodimer, it acts as a ligase that creates ubiquitin dimers. In neurons, UCH-L1's most important role appears to be that of generating free ubiquitin. Human UCH-L1 is 223 amino acids (aa) in length. It is O-glycosylated, ubiquitinated, and farnesylated; when farnesylated, it becomes associated with cell membranes. Three potential splice forms are reported. One shows a two aa substitution for aa 12-15, a second contains an alternative start site at Met82, and a third shows the same start site coupled with a deletion of aa 138-153. Full-length human UCH-L1 shares 95% aa identity with mouse UCH-L1.

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