

WWP1 (N-terminus)

Cat. # WP3931

Host Rabbit Polyclonal

Size 100 µl

Background:

The Nedd4-like family of E3 ubiquitin ligases have been implicated in several types of human cancer. There are nine members of the Nedd4-like E3 family, all of which have an N-terminal C2 domain, two to four WW domains in the central region, and a C-terminal domain that is homologous to the C-terminus of E6-AP. This ubiquitin ligase family includes NEDD4-1, NEDD4-2, AIP4/Itch, AIP5/WWP1, SMURF1 and SMURF2. Several ubiquitin ligases in this family are overexpressed in human cancers. WWP1 has been implicated as an oncogene as it is overexpressed in prostate and breast cancers, and knockdown of this ligase reduces cell proliferation and causes apoptosis. In addition, WWP1 has been shown to negatively regulate transforming growth factor- β (TGF- β) signaling by targeting TGF- β receptor 1, Smad2, and Smad4 for ubiquitin-mediated degradation. WWP1 has also been shown to regulate the protein levels of the epithelial sodium channel (ENaC), Notch, EGFR/ErbB2, Runx2, KLF2, KLF5, p53, and p63. Thus, WWP1 may regulate cell development and proliferation through the degradation of proteins involved in a variety of cell signaling pathways.

References

- Chen, C. et al. (2009) *Int. J. Cancer* 124:2829.
 Chen, C. et al. (2005) *J. Biol. Chem.* 280(50):41553.
 Komuro, A. et al. (2004) *Oncogene* 23:6914.
 Pirozzi, G. et al. (1997) *J. Biol. Chem.* 272:14611.

Immunogen:

WWP1 synthetic peptide (coupled to carrier protein) corresponds to amino acids in the N-terminus of human WWP1. This sequence is highly conserved in rat and mouse WWP1, and has low homology to other NEDD4-like family members.

Applications:

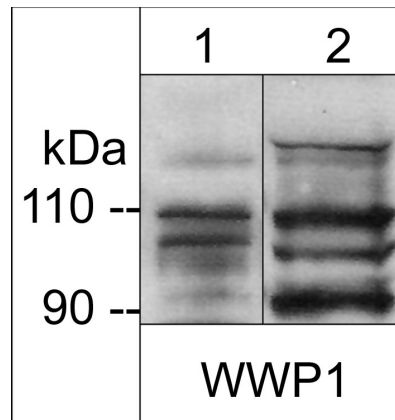
WB 1:1000
 ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

WX3935 WWP1 (N-terminus) Peptide
 AP2041 Atrogin-1 Rabbit Polyclonal
 MK6170 Muscle Atrophy Ubiquitin Ligase Antibody Sampler Kit
 MP3401 MuRF1 (C-terminal region) Rabbit Polyclonal
 EK6160 EGFR Phospho-Regulation Antibody Sampler Kit
 AK6060 Actin & Tubulin Antibody Sampler Kit

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Western blot analysis of WWP1 expression in adult mouse liver (lane 1) and human prostate adenocarcinoma (PC3) cells (lane 2). The blot was probed with anti-WWP1 (WP3931) at 1:1000.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C . Do not aliquot. Stable for 1 year.

Specificity:

The antibody detects a 110 kDa* protein corresponding to the apparent molecular mass of WWP1 on SDS-PAGE immunoblots of adult mouse liver and human PC3 cells. The antibody also detects lower molecular weight isoforms of WWP1 in mouse liver, and human PC3, HepG2, K562, HeLa, and HUVEC.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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