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Store at -20C
#2369

Villin-1 (R814) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 95	Source/Isotype: Rabbit	UniProt ID: #P09327	Entrez-Gene Id: 7429
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Villin-1 (R814) Antibody recognizes endogenous levels of total villin-1 protein.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy terminus of human villin-1. Antibodies are purified using protein A and peptide affinity chromatography.

Background

Villin is a member of the gelsolin family of calcium-regulated actin-binding proteins. Unlike the ubiquitously expressed gelsolin, villin expression is restricted to simple epithelia of the gastrointestinal and urogenital tracts. It is localized to the apical cytoplasm and brush borders of these cells. Villin functions in the regulation of actin dynamics in the apical epithelium, capping, nucleating and/or severing actin filaments in a calcium-dependent manner and regulating cell shape in response to external stimuli (1,2). Phosphorylation of villin at Tyr60, 81, and 256 may be involved in the regulation of cell migration (3). Expression of villin is increased in colorectal cancers (4), and villin-1 function appears to be involved in progressive cholestasis and hepatic failure (5).

Background References

1. Athman, R. et al. (2002) *Am. J. Physiol. Gastrointest. Liver Physiol.* 283, G496-502.
2. Kumar, N. et al. (2004) *J. Biol. Chem.* 279, 45036-45046.
3. Tomar, A. et al. (2004) *Mol. Biol. Cell* 15, 4807-4817.
4. Suh, N. et al. (2005) *Mod. Pathol.* 18, 1217-1222.
5. Phillips, M.J. et al. (2003) *Lancet* 362, 1112-1119.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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