

IVD DATA SHEET

Villin-1

Concentrated Rabbit Monoclonal Antibody

Intended Use:

For in Vitro Diagnostic Use

Epitomics' Rabbit Monoclonal Anti-Villin-1, Clone EP163, is intended for use to qualitatively identify human Villin-1 protein by light microscopy in sections of formalin-fixed, paraffin-embedded tissue using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient's clinical history and other diagnostic tests. Evaluation must be performed by a qualified pathologist.

Catalog number	Description	Dilution
AC-0165A	0.1 ml, concentrated	1:100-1:200
AC-0165B	0.5 ml, concentrated	1:100-1:200
AC-0165	1 ml, concentrated	1:100-1:200
AC-0165BULK	2 ml or more, concentrated	1:100-1:200

Immunogen: A synthetic peptide corresponding to residues in human Villin-1 protein.

Source: Rabbit Monoclonal Antibody

Clone ID: EP163

Isotype: Rabbit IgG

Application: Immunohistochemistry for formalin-fixed paraffin-embedded tissue

Summary and Explanation:

Villin is a tissue-specific actin-binding protein associated with the cytoskeleton of the brush border, which functions in the bundling, nucleation, capping and severing of actin filaments.

In normal tissues, Villin is expressed in differentiated epithelial cells with a brush border such as intestinal villi, proximal renal tubules, oviducts, and seminiferous ducts. Due to the restricted distribution of this protein, the anti-Villin-1 antibody has been used to identify gastrointestinal adenocarcinomas. In combination with CK 7 and CK 20, Villin is helpful in differentiating metastatic colon adenocarcinoma from lung adenocarcinoma with rootlets. Additionally, Villin has been reported to be expressed in 85% of gastrointestinal carcinoid tumors and 40% of lung carcinoid tumors, suggesting that Villin maybe helpful in differentiating carcinoid tumors from other endocrine tumors.

Reagent Provided:

Antibody to villin is affinity purified and diluted in 10 mM Phosphate buffered saline (PBS), pH 7.2 containing 1% bovine serum albumin (BSA) and 0.09% sodium azide (NaN₃).

Storage and Stability:

Store at 2-8 °C. Don't use after expiration date provided on the vial. The users must validate any storage conditions other than those specified.

Procedures Recommended:

1. Pretreatment: Epitope retrieval using citrate buffer (catalog #: SP-0001) with a pressure cooker.

2. Endogenous peroxidase block: Blocking for 10 minutes at room temperature using peroxidase solution (catalog #: SP-0002).

3. Protein block: Blocking for 10 minutes at room temperature using blocking solution (catalog #: SP-0003).

4. Primary antibody: Incubate for 30 minutes.

5. Detection: Follow instructions from the selected detection system (EpiPrecision™, a Biotin Streptavidin-HRP Detection, catalog #: DK-0001, 0003, or EpiVision™, a Rabbit Polymer Detection, catalog # DK-0002, 0004).

The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by individual laboratory.

Performance Characteristics:

This antibody gives cytoplasmic/membrane staining in positive cells. The recommended positive controls are Small Intestine for normal tissue and Colorectal Carcinomas for abnormal tissue.

Limitations:

Immunohistochemistry is a complex process. Variation in tissue selection, tissue processing, antigen retrieval, peroxidase activity, detection systems and improper counterstaining may cause variation in results.

References:

1. Friederich E, et al.: *J Biol Chem* 1999, 274:26751-26760
2. George SP, et al.: *J Biol Chem* 2007, 282:26528-26541
3. Tan J, et al.: *Hum Pathol* 1998, 29:390-396
4. Moll R, et al.: *Virchows Arch B Cell Pathol Incl Mol Pathol* 1987, 54:155-169
5. Zhang PJ, et al.: *Arch Pathol Lab Med* 1999, 123:812-816

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