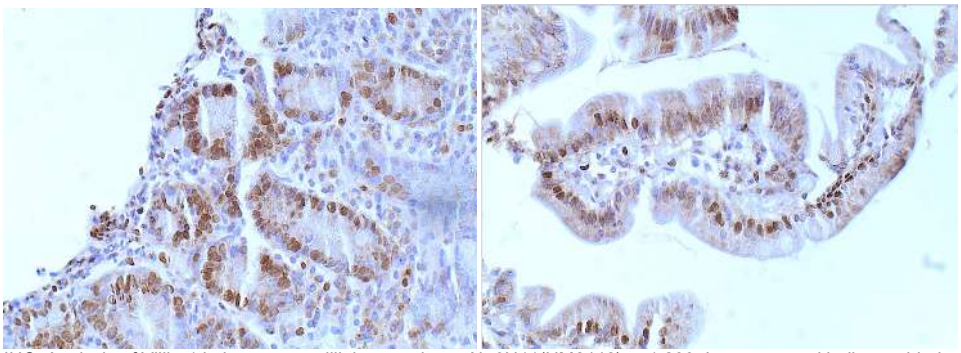
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Villin-1, Human, mAb 9H11		
Catalog number	HM2442-20UG		
Lot number	xxxxxXxxxx-X	**Expiry date**	MMM YYYY
Volume	1 ml	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.02%NaN3+0.1%BSA	**Concentration**	100 µg/ml
Host Species	Mouse IgG2b	**Conjugate**	None
Endotoxin	N/A	**Purification**	Protein G
Storage	4°C		

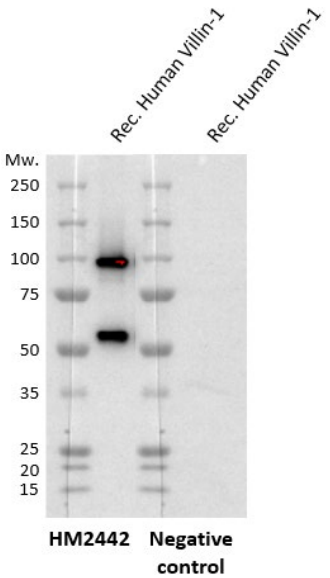
Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes	●	●						●
No								
N.D.			●	●	●	●	●	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



IHC: Analysis of Villin-1 in human gut villi tissue using mAb 9H11(HM2442) at 1:200. Images were kindly provided by Maya Imbrechts (KU Leuven, Laboratory for Therapeutic and Diagnostic antibodies) and Dr. Ricard Farré, KU Leuven, Translational Research in GastroIntestinal Disorders (TARGID)



WB: Western blot analysis performed with human Villin-1 protein with antibody 9H11 (HM2442) at 2 µg/ml .

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IHC: Human gut villi Tissue staining with HM2442. The slices were dried overnight in an oven at 60°C. Afterwards rehydrated with xylene, ethanol and water. Antigen retrieval was applied for 20 minutes with a sodium citrate buffer in an autoclave for 120 °C and washed afterwards with PBS. The blocking was performed with peroxidase blocking and avidin/biotin blocking kit. HM2442 was applied with a dilution of 1:200 and incubated for 30 minutes and washed. As a secondary antibody a horse anti mouse was applied at a dilution of 1:200 and incubated for 30 minutes and washed. The Vecatastain ABC kit was applied and incubated for 1 hour. Afterwards a DAB incubation was performed for about 45 seconds, add PBS to stop reaction. A Haematoxylin staining was performed. Then the slices were dehydrated with the help of ethanol and xylene.
- WB: A non-reduced sample treatment and SDS-Page was used. The band sizes visible around ~55 kDa and ~93 kDa.

General Information

Description	The Villin-1 monoclonal antibody, HM2442 clone 9H11, targets human villin-1, a cytoskeletal protein of 92.5 kDa found in the microvilli of intestinal epithelium enterocytes and kidney proximal tubular cells. As a critical component of cellular architecture, villin-1's presence in bodily fluids like blood and urine is indicative of cellular restructuring or damage. Notably, the detection of villin-1 in patients with acute kidney injury (AKI) underscores its potential as a biomarker for renal health, with levels notably responding to treatments like necrostatin-1 during ischemia-reperfusion events. Beyond renal implications, villin-1's expression profiles contribute to prognostic evaluations in diseases such as hepatocellular carcinoma, enhancing its profile as a multifaceted marker. Its role extends to gastroenterology, where it acts as a mucosal integrity indicator, crucial for diagnosing ischemic intestinal damage commonly associated with necrotizing enterocolitis. The HM2442 clone 9H11 is adepted for a variety of laboratory techniques, including immunohistochemistry (IHC), enzyme-linked immunosorbent assays (ELISA), and western blot applications, making it an invaluable tool for researchers exploring villin-1's role in health and disease.
Immunogen	Human Villin-1
Aliases	VIL1; D2S1471
Gene	Gene name VIL1 Entrez Gene ID 7429 Uniprot P09237
Cross reactivity	-
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC

Date

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.