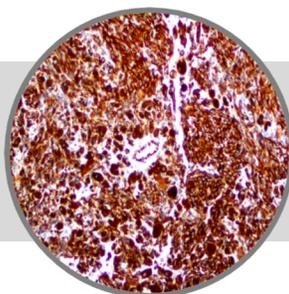


# Vimentin, RMAb

**Clone: EP21**

Rabbit Monoclonal


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*Inset: IHC of Vimentin on a FFPE Melanoma Tissue*

## Intended Use

For In Vitro Diagnostic Use.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by a qualified medical professional.

\* The Vimentin antibody, clone EP21, has been manufactured using Epitomics RabMab® technology covered under Patent No.'s 5,675,063 and 7,402,409.

## Immunogen

A synthetic acetylated peptide corresponding to the C-term of human Vimentin protein was used.

## Summary and Explanation

Vimentin is a member of the intermediate filament family of proteins. Intermediate filaments are an important structural feature of eukaryotic cells. Together with microtubules and actin microfilaments, they make up the cytoskeleton.

Expression of vimentin, when used in conjunction with keratin, is helpful in distinguishing melanomas from Undifferentiated Carcinomas and Large-Cell Lymphomas. All Melanomas and Schwannomas react strongly with vimentin. This antibody recognizes a 57 kDa intermediate filament. It labels a variety of mesenchymal cells, including melanocytes, lymph cells, endothelial cells and fibroblasts. Non-reactivity of vimentin antibody is often considered more useful than its presence, since there are a few tumors that do not contain vimentin (e.g., Hepatoma and Seminoma).

<b>Antibody Type</b>	Rabbit Monoclonal	<b>Clone</b>	EP21
<b>Isotype</b>	IgG	<b>Reactivity</b>	Paraffin, Frozen
<b>Localization</b>	Cytoplasmic	<b>Control</b>	Tonsil, Lymph Node
<b>Species Reactivity</b>		Human, Predicted: Mouse, Rat, Rhesus Monkey	

## Precautions

1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN<sub>3</sub>) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as laboratory coat, goggles and gloves when handling reagents.
4. Dispose of unused solution with copious amount of water.
5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
8. For additional safety information refer to Safety Data Sheet for this product.
9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

## Presentation

Vimentin is a rabbit monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

<i>Catalog No.</i>	<i>Antibody Type</i>	<i>Dilution</i>	<i>Volume/Qty</i>
BSB 2307	Tinto Prediluted	Ready-to-Use	3.0 mL
BSB 2308	Tinto Prediluted	Ready-to-Use	7.0 mL
BSB 2309	Tinto Prediluted	Ready-to-Use	15.0 mL
BSB 2310	Concentrated	1:50 - 1:200	0.1 mL
BSB 2311	Concentrated	1:50 - 1:200	0.5 mL
BSB 2312	Concentrated	1:50 - 1:200	1.0 mL

## Control Slides Available

<i>Catalog No.</i>	<i>Quantity</i>
BSB 2313	5 slides

**Storage** Store at 2-8°C (Control Slides: Store at 20-25°C)

## Stability

**This product is stable up to the expiration date on the product label.** Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

## Specimen Preparation

**Paraffin sections:** The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033) or ImmunoDNA Digestor (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

**Frozen sections and cell preparations:** The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

## Staining Procedure

- Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
- Air dry for 2 hours at 58° C.
- Deparaffinize, dehydrate and rehydrate tissues.
- Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
- Any of three heating methods may be used:
  - TintoRetriever Pressure Cooker or Equivalent**  
Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
  - TintoRetriever PT Module or Water Bath Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
  - Conventional Steamer Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
- After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
- For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
- Wash slides with ImmunoDNA washer or DI water.
- Continue IHC staining protocol. Wash slides between each step with ImmunoDNA washer solution.

## Abbreviated Immunohistochemical Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

## Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

## Symbol Key / Légende des symboles/Erläuterung der Symbole

	EMERGO EUROPE Prinsessegracht 20 2514 AP The Hague The Netherlands		Storage Temperature Limites de température Zulässiger Temperaturbereich		Manufacturer Fabricant Hersteller		Catalog Number Référence du catalogue Bestellnummer
	In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro In-Vitro-Diagnostikum		Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten		Expiration Date Utiliser jusque Verwendbar bis		Lot Number Code du lot Chargenbezeichnung

## Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMunter (BSB 0169-0174) or organic solvent based resin such as PermaMunter (BSB 0094-0097), refer to PI0174 or PI0097.

## Performance Characteristics

Normal Tissues	
Positive (+)	
mesenchymal cells	fibrocytes
lipocytes	smooth muscle cells
vascular endothelial cells	astrocytes
peripheral nerve	macrophages
Kupffer cells	myoepithelial cells
sweat glands of breast	follicular cells of thyroid
adrenal cortex	renal distal tubules
renal glomerulus	pancreatic acinar cells
retinal epithelial cells	skeletal and cardiac muscle cells
colonic and gastric mucosa	glial cells
Negative (-)	
neurons	
Abnormal Tissues	
Positive (+)	
sarcomas 17/20	melanoma 16/18
meningioma 4/4	schwannoma 3/3
neuroendocrine carcinoma	variable (10-60%)
thyoma	variable (10-60%)
mesotheliomas	variable (10-60%)
papillary carcinoma of thyroid	variable (10-60%)
renal carcinoma	variable (10-60%)
endometrial carcinoma	variable (10-60%)
ovarian carcinoma	variable (10-60%)
lung carcinoma	variable (10-60%)

## References

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- Davey FR, et al. Am J Pathol. 1987;129:54-63
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- U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012.



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