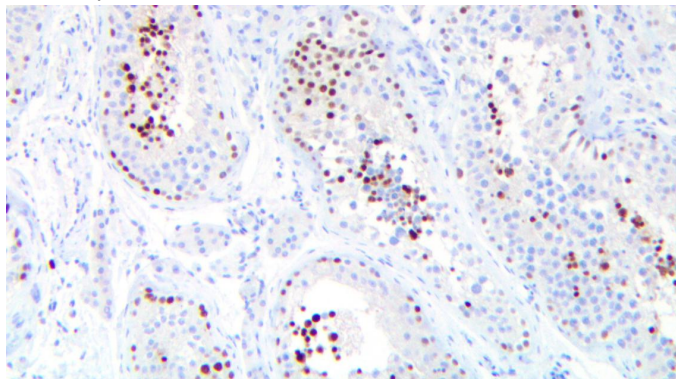


NUT/NUTM1

Clone: RPab
Rabbit Polyclonal



Inset: IHC of NUTM1/NUT on a FFPE Testis 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.

Immunogen

Recombinant protein corresponding to Human NUTM1.

Summary and Explanation

Nuclear protein in Testis (NUT or NUTM1) is a nuclear protein encoded by the *NUTM1* gene on Chromosome 15 and normally expressed in testicular tissues. NUT is an unstructured protein with few orthologs, and shuttles between the nucleus and cytoplasm. NUT Cancer (formerly NUT Midline Carcinoma) occurs after a gene fusion event between *NUTM1* and often a bromodomain (BRD) family gene in ~75% of cases. *NUTM1* less commonly fuses with *NSD3*, *MXD4*, *MGA*, *ZNF532*, *CIC*, and other rare variants, which are all considered to be NUT cancers.

NUT cancers can be carcinomas, sarcomas, lymphomas, and other types of tumors, and are often formed in the head, neck, or mediastinum. However, primary cancers have been reported in kidney, bladder, lung, breast, and metastasis to lymph nodes has also been seen for these very aggressive tumors. NUT cancers generally have poorly differentiated morphology with sudden transitions to well-differentiated squamous epithelium. The cells express high molecular weight cytokeratins and p63 or p40, although the presence of NUT confirms the identity of the tumor.

| | | | |
|----------------------|---|---------------------------|------------------|
| Antibody Type | Rabbit Polyclonal | Clone | RPab |
| Isotype | IgG | Reactivity | Paraffin, Frozen |
| Localization | Nuclear | Species Reactivity | Human |
| Control | Testis | | |
| Application | Head and Neck Cancer, Sarcoma and Soft Tissue Tumor, Lymphoma | | |

Presentation

Anti-NUTM1/NUT is a purified immunoglobulin fraction of rabbit antiserum that is filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

| <i>Catalog No.</i> | <i>Presentation</i> | <i>Dilution</i> | <i>Volume</i> |
|--------------------|---------------------|-----------------|---------------|
| BSB-3741-3 | Predilute | Ready-to-Use | 3.0 mL |
| BSB-3741-7 | Predilute | Ready-to-Use | 7.0 mL |
| BSB-3741-15 | Predilute | Ready-to-Use | 15.0 mL |
| BSB-3741-01 | Concentrate | 1:50-1:200 | 0.1 mL |
| BSB-3741-05 | Concentrate | 1:50-1:200 | 0.5 mL |
| BSB-3741-1 | Concentrate | 1:50-1:200 | 1.0 mL |

Control Slides Available

| <i>Catalog No.</i> | <i>Quantity</i> |
|--------------------|-----------------|
| BSB-3741-CS | 5 slides |

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

Precautions

1. For professional users only. Results should be interpreted by a qualified medical professional.
2. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent.
3. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents.
4. Dispose of unused solution with copious amounts 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).

Stability

This product is stable up to the expiration date on the product label.

Do not use after expiration date listed on the 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 Digester (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 on acetone-fixed frozen sections and acetone-fixed cell preparations.

IHC Protocol

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. 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).
5. Any of three heating methods may be used:

a. 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.

b. 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.

c. 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.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
 7. For manual IHC, perform antibody incubation at ambient temperature. For automated IHC methods, perform antibody incubation according to instrument manufacturer's instructions.
 8. Wash slides with ImmunoDNA washer or DI water.
 9. Continue IHC 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 |

Mounting Protocols

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

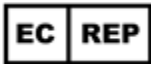







Product Limitations

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.

References

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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 |