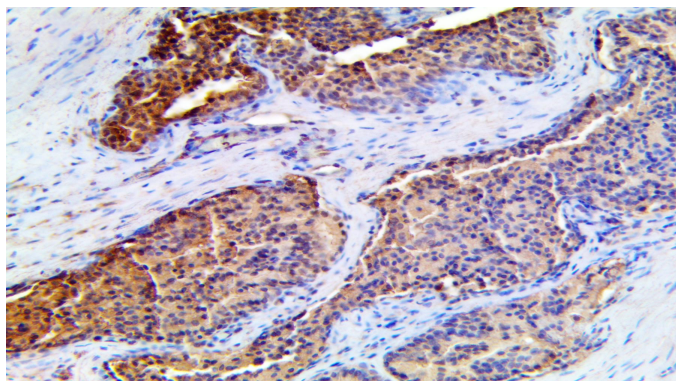


Annexin VII

Clone: EP367

Rabbit Monoclonal



Inset: IHC of Annexin VII on a FFPE Prostate Adenocarcinoma 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 Annexin VII antibody, clone EP367, has been manufactured using Epitomics RabMab® technology covered under Patent No.s 5,675,063 and 7,402,409

Immunogen

Recombinant human Annexin VII protein.

Summary and Explanation

Annexin VII (or Annexin A7) is a Ca^{2+} -dependent and phospholipid-binding protein. It is encoded by the *ANX7* gene, which is located in human chromosome 10q21. It is a member of the annexin protein family, which regulates various endomembrane processes including vesicle fusion, segregation, and compartmentalization and is implicated in plasma membrane repair mechanisms.

Studies suggest that *ANX7* is a tumor suppressor gene and it was found that Annexin VII is associated with several types of cancers, such as Prostate, Breast, Liver, and Gastric cancer. IHC analysis showed that a low or the loss of expression of *ANX7* correlates with Prostate cancer progression. On the contrary, high levels of *ANX7* expression were found in Metastatic Breast Tumors and that HER2-Negative patients suffer increased risk of death when *ANX7* expression levels are elevated. Another study found that *ANX7* predominantly shows low expression in other cancer types, such as Colon Adenocarcinoma or Bladder Transitional Cell Carcinoma. A study identified the prognostic impact of *ANXA7* in Prostate Cancer using tissue microarrays, identified *ANXA7* as a new prognostic factor and indicated a bimodal correlation to tumor progression. Another study concluded that Annexin A7 expression was able to inhibit HCC lymph node metastasis, whereas knockdown of Annexin A7 expression significantly induced HCC metastasis to local lymph nodes.

Antibody Type	Rabbit Monoclonal	Clone	EP367
Isotype	IgG	Reactivity	Paraffin, Frozen
Localization	Nuclear, Cytoplasmic, Membranous	Species Reactivity	Human
Control	Breast, Colon, Kidney, Tonsil, Prostate, Testis, Transitional Cell Carcinoma		
Application	Breast Cancer, Prostate Cancer, Liver Cancer, Colon & Gastrointestinal. Cancer		

Presentation

Anti-Annexin VII 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>Presentation</i>	<i>Dilution</i>	<i>Volume</i>
BSB-3709-3	Predilute	Ready-to-Use	3.0 mL
BSB-3709-7	Predilute	Ready-to-Use	7.0 mL
BSB-3709-15	Predilute	Ready-to-Use	15.0 mL
BSB-3709-01	Concentrate	1:50-1:200	0.1 mL
BSB-3709-05	Concentrate	1:50-1:200	0.5 mL
BSB-3709-1	Concentrate	1:50-1:200	1.0 mL

Control Slides Available

<i>Catalog No.</i>	<i>Quantity</i>
BSB-9018-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 (NaN_3) 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 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 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

1. Srivastava M, Bubendorf L, Srikantan V, et al. ANX7, a candidate tumor suppressor gene for prostate cancer. Proc Natl Acad Sci U S A. 2001;98(8):4575-4580. doi:10.1073/pnas.071055798
2. Sønder SL, Boye TL, Tölle R, et al. Annexin A7 is required for ESCRT III-mediated plasma membrane repair. Sci Rep. 2019;9(1):6726. Published 2019 Apr 30. doi:10.1038/s41598-019-43143-4
3. Srivastava M, Bubendorf L, Raffeld M, et al. Prognostic impact of ANX7-GTPase in metastatic and HER2-negative breast cancer patients. Clin Cancer Res. 2004;10(7):2344-2350. doi:10.1158/1078-0432.ccr-03-0278
4. Guo C, Liu S, Greenaway F, Sun MZ. Potential role of annexin A7 in cancers. Clin Chim Acta. 2013;423:83-89. doi:10.1016/j.cca.2013.04.018
5. Srivastava M, Torosyan Y, Raffeld M, Eidelman O, Pollard HB, Bubendorf L. ANXA7 expression represents hormone-relevant tumor suppression in different cancers. Int J Cancer. 2007;121(12):2628-2636. doi:10.1002/ijc.23008
6. Leighton X, Bera A, Eidelman O, et al. Tissue microarray analysis delineate potential prognostic role of Annexin A7 in prostate cancer progression. PLoS One. 2018;13(10):e0205837. Published 2018 Oct 15. doi:10.1371/journal.pone.0205837
7. 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. <https://www.cdc.gov/mmwr/pdf/other/su6101.pdf>

Symbol Key / Légende des symboles/Erläuterung der Symbole

 QAdvis EAR AB Ideon Science Park Scheelevägen 17 SE-223 70 Lund, Sweden	 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