

# FOXA1/HNF-3A

Clone: EP277 Rabbit Monoclonal







Inset: IHC of FOXA1/HNF-3A on a FFPE Lymphoblastic Lymphoma 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

A protein fragment corresponding to human FOXA1 protein.

# **Summary and Explanation**

FOXA1 is a member of the forkhead class of DNA-binding proteins. These hepatocyte nuclear factors are transcriptional activators for liver-specific transcripts such as albumin and transthyretin, and they also interact with chromatin. FOXA1 is a downstream target of GATA3 in the mammary gland.

FOXA1 in breast cancer is highly correlated with ER $\alpha$ +, GATA3+, and PR+ protein expression as well as endocrine signaling. FOXA1 absence in  $ER\alpha$ + cancer might identify ERa cancers that are resistant to endocrine therapy. In ER $\alpha$ - breast cancer, FOXA1 is highly correlated with improved disease free survival and GATA3. Expression in ER $\alpha$ - cancers may identify a subset of tumors that is responsive to other endocrine therapies such as androgen receptor antagonist treatment.

Antibody Type	Rabbit Monoclonal	Clone	EP277	
Isotype	IgG	Reactivity	Paraffin, Frozen	
Localization	Nuclear,	Species	Human, Predicted	
	Cytoplasmic	Reactivity	Mouse and Rat	
Control	Prostate, Breast, Tonsil, Colon, Fallopian Tube, Breast			
	Carcinoma, Prostate Carcinoma			
Application	Breast Cancer, Pr	ostate Cancer		

# Presentation

Anti-FOXA1/HNF-3A 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.

Catalog No.	Presentation	Dilution	Volume
BSB 2908	Predilute	Ready-to-Use	3.0 mL
BSB 2909	Predilute	Ready-to-Use	7.0 mL
BSB 2910	Predilute	Ready-to-Use	15.0 mL
BSB 2911	Concentrate	1:50-1:200	0.1 mL
BSB 2912	Concentrate	1:50-1:200	0.5 mL
BSB 2913	Concentrate	1:50-1:200	1.0 mL

# Control Slides Available

Catalog No.	Quantity	
BSB-9182-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<sub>3</sub>) 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
- 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 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. "Entrez Gene: forkhead box A1"
- 2. Kouros-Mehr H, et al. Cell. 2006 Dec; 127(5):1051-55
- 3. Albergaria A, et al. Breast Cancer Research. 2009; 11(3):R40
- 4. Sanga S, et al. BMC Medical Genomics. 2009; 2:59
- 5. 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 Storage Temperature Manufacturer Catalog Number Ideon Science Park EC **REP** Limites de température Fabricant Référence du catalogue REF Scheelevägen 17 Zulässiger Temperaturbereich Hersteller Bestellnummer SE-223 70 Lund, Sweden Read Instructions for Use In Vitro Diagnostic Medical Device **Expiration Date** Lot Number Consulter les instructions  $\prod$ i Dispositif médical de diagnostic in vitro IVD Utiliser jusque LOT Code du lot d'utilisation In-Vitro-Diagnostikum Verwendbar bis Chargenbezeichnung Gebrauchsanweisung beachten



