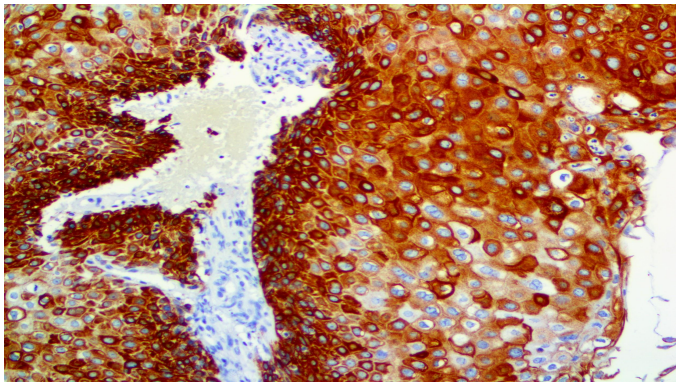
Cytokeratin 17

Clone: BSB-33
Mouse Monoclonal

CE IVD



Inset: IHC of Cytokeratin 17 on a FFPE Cervical Carcinoma Tissue

Antibody Type	Mouse Monoclonal	**Clone**	BSB-33
Isotype	IgG2a/K	**Reactivity**	Paraffin, Frozen
Localization	Cytoplasmic	**Species Reactivity**	Human, Rat, Goat and Pig
Control	Skin, Testis, Breast, Cervix, Cervical Carcinoma, Bladder Transitional Cell Carcinoma		
Application	Ovarian Cancer, Cervical Cancer, Lung Cancer, Breast Cancer, Gall Bladder & Pancreatic Cancer, Carcinoma of Unknown Primary Site		

Presentation
Anti-Cytokeratin 17 is a Mouse 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 2726	Predilute	Ready-to-Use	3.0 mL
BSB 2727	Predilute	Ready-to-Use	7.0 mL
BSB 2728	Predilute	Ready-to-Use	15.0 mL
BSB 2729	Concentrate	1:25-1:100	0.1 mL
BSB 2730	Concentrate	1:25-1:100	0.5 mL
BSB 2731	Concentrate	1:25-1:100	1.0 mL

Control Slides Available

Catalog No.	*Quantity*
BSB-9137-CS	5 slides

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

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 synthetic peptide corresponding to human Cytokeratin 17 protein.

Summary and Explanation
Cytokeratin 17 (CK 17) is a Type I cytokeratin with a MW of 46 kD found sometimes in association with Cytokeratin 7. Cytokeratin 17 is found in nail beds, hair follicles, sebaceous glands, and other epidermal appendages. Mutations in the gene encoding this protein lead to Jackson-Lawler type Pachyonychia Congenita and Steatocystoma Multiplex.

Cytokeratin 17 antibody has been used to distinguish immature Cervical Squamous Metaplasia from High Grade Cervical Intraepithelial Neoplasia (CIN III). Anti-CK 17 also labels myoepithelial cells in the benign breast tissue. CK 17 can be useful when included in a panel of antibodies against TTF-1, napsin A, CK 5&6, p63, and SOX-2 for diagnostic differentiation between lung adenocarcinoma (LADC) and lung squamous cell carcinoma (SCLC), especially for poorly-differentiated lung carcinoma. CK 17 is expressed in SCLC much higher than in LADC. In breast carcinomas, approximately 20% of patients show no expression of ER, PR and Her2, which are defined as triple negative tumor. Eighty-five percent of the triple negative breast carcinomas immunoreact with basal cytokeratins including anti-CK 17. The histologic differentiation of ampullary cancer, intestinal vs. pancreatobiliary, is very important for treatment. Usually anti-CK 17 and anti-MUC1 immunoreactivity represents pancreatobiliary subtype whereas anti-MUC2 and anti-CDX-2 positivity defines intestinal subtype.

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 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. Smith FJ, et al. J. Invest. Dermatol. 2001;116(5):806-8
2. Van de Rijn M, et al. Am. J. Pathol. 2003;161(6):1991-6
3. Regauer S, Histopathology. 2007;Apr;50(5):629-35
4. Chu PG, et al. Am J Surg Pathol. 2005;Mar;29(3):359-67
5. Martens JE, et al. Anticancer Res. 2004;Mar-Apr;24(2B):771-5
6. 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

EC REP QAdvis EAR AB Ideon Science Park Scheelevägen 17 SE-223 70 Lund, Sweden	Storage Temperature Limites de température Zulässiger Temperaturbereich	Manufacturer Fabricant Hersteller	REF Catalog Number Référence du catalogue Bestellnummer
IVD 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 Lot Number Code du lot Chargenbezeichnung

Bio SB BIOSCIENCE FOR THE WORLD
5385 Hollister Avenue, Bldg. 8, Ste. 108 Santa Barbara, CA 93111, USA
Tel. (805) 692-2768 | Tel. (800) 561-1145 | Fax. (805) 692-2769
E-mail: sales@biosb.com | Website: www.biosb.com