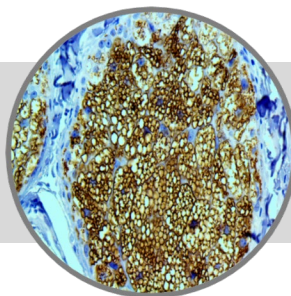


# Adipophilin/ADRP

**Clone: BSB-91**

Mouse Monoclonal


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*Inset: IHC of Adipophilin on a FFPE Squamous Cell Carcinoma 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

Synthetic peptide corresponding to the C-terminus of human Adipophilin.

## Summary and Explanation

Adipose differentiation-related protein, also known as perilipin 2 (PLIN2), ADRP or adipophilin, is a protein which in humans is encoded by the ADFP gene. Adipocyte differentiation-related protein is associated with the globule surface membrane material. This protein is a major constituent of the globule surface. Increase in mRNA levels is one of the earliest indications of adipocyte differentiation. Adipophilin occurs in a wide range of cultured cell lines, including fibroblasts and endothelial and epithelial cells. In tissues, however, expression of adipophilin is restricted to certain cell types, such as lactating mammary epithelial cells, adrenal cortex cells, Sertoli and Leydig cells of the male reproductive system, and steatosis or fatty change hepatocytes in alcoholic liver cirrhosis.

Adipophilin expression in various sebaceous lesions and other cutaneous tumors with a clear cell histology that may mimic sebaceous differentiation. Adipophilin can be valuable in an immunohistochemical panel when evaluating cutaneous lesions with clear cell histology as it identifies intracytoplasmic lipid vesicles in sebaceous and xanthomatous lesions. In periorcular lesions, it is effective in helping to exclude basal cell carcinoma and squamous cell carcinoma when sebaceous carcinoma is under consideration. Adipophilin expression is not as useful for the differential diagnosis that includes metastatic renal cell carcinoma, a rare but important, diagnostic differential. The pattern of adipophilin reactivity is important to observe as membranous vesicular staining is suggestive of intracellular lipids whereas granular cytoplasmic reactivity is not. Adipophilin is suitable for immunostaining and is helpful in the identification of intracytoplasmic lipids, as seen in sebaceous lesions. It is especially helpful in identifying intracytoplasmic lipid vesicles in poorly differentiated sebaceous carcinomas in challenging cases such as small periorcular biopsy specimens.

|                           |                         |                   |   |
|---------------------------|-------------------------|-------------------|---|
| <b>Antibody Type</b>      | Mouse Monoclonal        | <b>Clone</b>      | BSB-91                                    |
| <b>Isotype</b>            | IgG1                    | <b>Reactivity</b> | Paraffin, Frozen                          |
| <b>Localization</b>       | Cytoplasmic, Membranous | <b>Control</b>    | Adrenal, SCC, TCC and Sebaceous Neoplasms |
| <b>Species Reactivity</b> |                         | Human             |   |

## Presentation

Adipophilin 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.

| <i>Catalog No.</i> | <i>Antibody Type</i> | <i>Dilution</i> | <i>Volume/Qty</i> |
|--------------------|----------------------|-----------------|-------------------|
| BSB 3246           | Tinto Prediluted     | Ready-to-Use    | 3.0 mL            |
| BSB 3247           | Tinto Prediluted     | Ready-to-Use    | 7.0 mL            |
| BSB 3248           | Tinto Prediluted     | Ready-to-Use    | 15.0 mL           |
| BSB 3249           | Concentrated         | 1:50 - 1:200    | 0.1 mL            |
| BSB 3250           | Concentrated         | 1:50 - 1:200    | 0.5 mL            |
| BSB 3251           | Concentrated         | 1:50 - 1:200    | 1.0 mL            |

## Control Slides Available

| <i>Catalog No.</i> | <i>Quantity</i> |
|--------------------|-----------------|
| BSB 3252           | 5 slides        |

## 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).

**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:

### 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.

- 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                |

## 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

- Bosma M, Hesselink MKC, Sparks LM; et al. Perilipin 2 improves insulin sensitivity in skeletal muscle despite elevated intramuscular lipid levels. *Diabetes*. 2012. 61 (11): 2679–2690.
- Heid HW1, Moll R, Schwetlick I, Rackwitz HR, Keenan TW. Adipophilin is a specific marker of lipid accumulation in diverse cell types and diseases. *Cell Tissue Res*. 1998 Nov; 294(2):309-21.
- Ostler DA1, Prieto VG, Reed JA, Deavers MT, Lazar AJ, Ivan D. Adipophilin expression in sebaceous tumors and other cutaneous lesions with clear cell histology: an immunohistochemical study of 117 cases. *Mod Pathol*. 2010 Apr;23(4):567-73.
- 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.

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

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



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