

Rabbit anti-human Adipophilin Antibody (Polyclonal)

REFERENCES AND PRESENTATIONS¹

- **ready-to-use (ml)**
MAD-000627QD-3
MAD-000627QD-7
MAD-000627QD-12
- **concentrated**
MAD-210627Q - 1:50 recommended dilution

COMPOSITION

Anti-human Adipophilin rabbit polyclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

INTENDED USE : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: Polyclonal

IG ISOTYPE: rabbit IgG

SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species

DESCRIPTION AND APPLICATIONS: Sebaceous carcinoma is a relatively uncommon cutaneous malignancy and mimics other malignant neoplasms, such as basal and squamous cell carcinomas, and benign processes, such as chalazions and blepharitis, sometimes resulting in delayed diagnosis and suboptimal treatment. Adipophilin is present in milk fat globule membranes and on the surface of lipid droplets in various normal cell types. Recently, it has been reported that adipophilin was expressed in sebaceous adenomas with a specific pattern: membranous with strong uptake at the periphery of intracytoplasmic lipid vacuoles. Sebaceous carcinomas are also labeled with a similar pattern. Additionally, in cases of poorly differentiated sebaceous carcinoma, adipophilin highlights the sebocytes with a strong membranous labeling of intracytoplasmic lipid droplets. Moreover, xanthelasma, xanthogranulomas, xanthomas, metastatic renal cell carcinomas were also weakly-to- moderately positive for adipophilin in one study.

Expression of adipophilin with a membranous pattern of staining was not seen in any of the other clear cell lesions of the skin, including basal and squamous cell carcinomas, trichilemmomas, clear cell hidradenomas,

or balloon cell nevi. Interestingly, a nonspecific granular uptake of anti-adipophilin was seen in adjacent macrophages, keratohyalin granules of epithelial squamous cells, and some tumor cells. Therefore, this anti-adipophilin is suitable for immunostaining formalin-fixed, paraffin-embedded tissue and is helpful in the identification of intracytoplasmic lipids, as seen in sebaceous lesions. Acinary cell carcinomas of the breast, some liposarcomas, or carcinomas of the colon, lung, pancreas or prostate and strangely the majority of Burkitt lymphomas might also be positive.

IHC POSITIVE CONTROL: Sebaceous units of normal skin

VISUALIZATION: Cell cytoplasm, vesicular pattern

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and do not perform any antigen retrieval
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  up to 18 months;  stored at 2-8°C. Do not freeze.

WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:

- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).

- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).

For different presentations (references / volumes) please contact the supplier.



downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory.md@vitro.bio.

BIBLIOGRAPHY

1. Eisinger DP, Serrero G. Structure of the gene encoding mouse adipose differentiation-related protein (ADRP). *Genomics*. 1993 Jun;16(3):638-44
2. Heid HW, 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
3. Dahlhoff M, Camera E, Picardo M, Zouboulis CC, Chan L, Chang BH, Schneider MR. PLIN2, the major perilipin regulated during sebocyte differentiation, controls sebaceous lipid accumulation in vitro and sebaceous gland size in vivo. *Biochim Biophys Acta*. 2013 Oct;1830(10):4642-9
4. Ostler DA, 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
5. Boussahmain C, Mochel MC, Hoang MP. Perilipin and adipophilin expression in sebaceous carcinoma and mimics. *Hum Pathol*. 2013 Sep;44(9):1811-6
6. Osako T, Takeuchi K, Horii R, Iwase T, Akiyama F. Secretory carcinoma of the breast and its histopathological mimics: value of markers for differential diagnosis. *Histopathology*. 2013 Oct;63(4):509-19
7. Rangel J, McCalmont TH. Intracytoplasmic adipophilin immunopositivity: a pitfall in the distinction of metastatic renal carcinoma from sebaceous carcinoma. *J Cutan Pathol*. 2010 Dec;37(12):1193-5
8. Moritani S, Ichihara S, Hasegawa M, Endo T, Oiwa M, Shiraiwa M, Nishida C, Morita T, Sato Y, Hayashi T, Kato A. Intracytoplasmic lipid accumulation in apocrine carcinoma of the breast evaluated with adipophilin immunoreactivity: a possible link between apocrine carcinoma and lipid-rich carcinoma. *Am J Surg Pathol*. 2011 Jun;35(6):861-7
9. Ambrosio MR, Piccaluga PP, Ponzoni M, Rocca BJ, Malagnino V, Onorati M, De Falco G, Calbi V, Ogwang M, Naresh KN, Pileri SA, Doglioni C, Leoncini L, Lazzi S. The alteration of lipid metabolism in Burkitt lymphoma identifies a novel marker: adipophilin. *PLoS One*. 2012;7(8):e44315

