Adipophilin

Format	Catalog No.	Pack size	Dilution
Concentrated	GB3138A	0.1 mL	1:100
Prediluted	GB3138AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

Adipocyte differentiation-related protein (ADRP/ADFP) is linked to the membrane material of globules. Adipophilin (also referred to as PLIN2) has demonstrated the ability to identify the expression of ADFP in sebocytes and sebaceous lesions . Sebaceous carcinoma is an infrequent cutaneous malignancy that can resemble other malignant neoplasms, including basal and squamous cell carcinomas, as well as benign conditions including chalazions and blepharitis, leading to delayed diagnosis and inadequate therapy. Adipophilin was expressed in all 16 (100%) sebaceous adenomas, exhibiting a distinct pattern of membranous staining with pronounced uptake around the perimeter of intracytoplasmic lipid vacuoles. Out of 25 sebaceous carcinomas, 23 (92%) exhibited a comparable pattern . Furthermore, in instances of weakly differentiated sebaceous carcinoma where sebaceous differentiation could not be accurately assessed in H&E sections, adipophilin effectively highlighted sebocytes and xanthelasmas . Metastatic renal cell carcinomas exhibited modest to moderate positivity for adipophilin. Adipophilin may serve as a valuable marker for identifying intracytoplasmic lipids, particularly in sebaceous lesions. It is particularly beneficial for recognizing intracytoplasmic lipid vesicles in poorly differentiated sebaceous carcinomas in difficult scenarios, such as tiny periocular biopsy specimens . Furthermore, adipophilin has been linked to lipid metabolism in Burkitt lymphoma and demonstrated pronounced expression in most cases of Burkitt lymphoma . Adipophilin has been demonstrated to be increased in lung adenocarcinoma, suggesting its potential as a biomarker for this condition.

INTENDED USE -

Intended for In Vitro Diagnostic Applications
Adipophilin is a rabbit polyclonal antibody designed for laboratory application in the qualitative immunohistochemistry (IHC) of formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical assessment of any staining or its absence must be supplemented by morphological analyses with appropriate controls and should be considered in conjunction with the patient's clinical history and other diagnostic evaluations by a certified pathologist.

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GENE BIO SOLUTION

SUMMARY AND EXPLANATION -

Adipocyte differentiation-related protein (ADRP/ADFP) is linked to the membrane composition of globules. Adipophilin (also referred to as PLIN2) has been demonstrated to identify the expression of ADFP in sebocytes and sebaceous lesions. Sebaceous carcinoma is an uncommon malignancy of the sebaceous glands that can resemble other malignant neoplasms (including basal cell carcinoma, lymphoma, melanoma, Merkel cell carcinoma, and squamous cell carcinoma) as well as inflammatory conditions (such as blepharitis and chalazion), leading to delayed diagnosis, inferior prognosis, and inadequate treatment. Adipophilin has demonstrated a distinct pattern of membrane expression, staining 16 out of 16 (100%) sebaceous adenomas and exhibiting significant uptake at the perimeter of intracytoplasmic lipid vacuoles. Out of 25 sebaceous carcinomas, 23 (92%) exhibited a comparable pattern . In instances with weakly differentiated sebaceous carcinoma, adipophilin staining of sebocytes and xanthelasmas proved to be a more reliable indicator of sebaceous differentiation than H&E sections . Metastatic renal cell carcinomas exhibited modest to moderate positivity for adipophilin . Adipophilin may serve as a valuable marker for identifying intracytoplasmic lipids, particularly in sebaceous lesions or poorly differentiated sebaceous carcinomas, including tiny periocular biopsy specimens . Moreover, adipophilin has been linked to lipid metabolism in Burkitt lymphoma and shown pronounced expression in most cases of Burkitt lymphoma. Adipophilin has been demonstrated to be increased in lung cancer and may thus function as a potential biomarker for this condition.

PRINCIPLE OF PROCEDURE -

Antigen identification in tissues and cells is a multi-faceted immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection method may be employed. A one-step procedure will utilize a polymer tagged with an enzyme that attaches to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. The detection of bound antibodies is demonstrated using a colorimetric response.

SOURCE - Rabbit polyclonal

SPECIES REACTIVITY - Human; others not tested

CLONE -N/A

ISOTYPE -IgG

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PROTEIN CONCENTRATION - Lot specific Ig concentration is not available.

EPITOPE/ANTIGEN - aa193-223

CELLULAR LOCALISATION - Cell membrane/cytoplasm

POSITIVE TISSUE CONTROL - Sebaceous skin

KNOWN APPLICATIONS-Immunohistochemistry 30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95ºC followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - : Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2ºC to 8ºC. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Materials required but not provided -

1) Positivetissuecontrol-Sebaceousskin
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

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