

Cytokeratin 17 (CK17)

Prediluted Monoclonal Antibody
902-176-080525



Available Product Formats

Format	Catalog Number	Description	Dilution	Diluent
NeoPATH PRO	NPAR 176 T40	40 tests	Ready-to-use	N/A

Intended Use:

For Research Use Only. Not for use in diagnostic procedures.
This mouse antibody is intended to detect Cytokeratin 17 (CK17) protein.

Background Information:

CK17 antibody reacts with a 40kDa polypeptide and CK17 is a type I keratin. Studies have shown that it is indicated as an excellent marker for the identification of squamous cell carcinomas in various tissues including the cervix, lung, and oral cavity.⁸ CK17 may be helpful to aid in distinguishing myoepithelial cells from luminal epithelium of various glands such as mammary, sweat and salivary. According to studies, expression of CK17 in breast cancer has been associated with a worse prognosis, high tumor grade and positive axillary lymph nodes.⁵⁻⁸

Known Applications:

Immunohistochemistry (Formalin-fixed paraffin-embedded tissues). Other applications have not been tested.

Supplied As:

Buffered saline solution, pH 5.9 – 6.0, contains a protein carrier and less than 0.1% sodium azide preservative. See Safety Data Sheet for additional details.

Materials and Methods:

Reagents Provided:

Host Source: Mouse monoclonal

Species Reactivity: Human; other species not tested.

Clone: Ks 17.E3

Isotype: IgG2b

Protein Concentration: Contact Biocare's Technical Support for specific Ig concentration.

Specificity: Cytokeratin 17

Reconstitution, Mixing, Dilution, and Titration:

Prediluted antibody reagent is optimally diluted for use with the above listed staining systems. Further dilution may result in loss of antigen staining. The user must validate any such change. Differences in tissue processing and technical procedures in the user's laboratory may produce significant variability in results necessitating regular performance of in-house controls.

Storage and Stability:

Store at 2°C to 8°C. The product is stable to the expiration date printed on the vial label when stored under these conditions. Do not use after expiration date. Storage under any condition other than those specified must be verified. Diluted reagents should be used promptly; store any remaining reagent at 2°C to 8°C. The stability of user diluted reagents has not been established by Biocare.

Staining Protocol Recommendations (NeoPATH PRO):

NPAR176 is compatible for use with the NeoPATH PRO. Below are programming and protocol recommendations to assist the user when staining using Biocare's NeoPATH PRO Automated Staining Platform for research applications. The user is responsible for further optimizations of the protocol.

Chromogen Option: DAB

Antibody Protocol: CK17, 10 min at RT

Template: HRP_PEP/5M/25C_10MINAB_STD

Dewax: 20 min at 75°C

Antigen Retrieval (HIER Option): N/A

Block Option: N/A

Enzyme: ENZYME_PEP_25C_5MIN

Detection: HRP_10AB_STD (Amplifier; 10 min at RT Polymer; 25 min at RT)

Chromogen: 7 min DAB + 2 min DAB Enhancer at RT

Hematoxylin: 7 min at RT

Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

Precautions:

1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)¹
2. Handle materials of human or animal origin as potentially biohazardous and dispose of such materials with proper precautions. In the event of exposure, follow the health directives of the responsible authorities where used.^{2,3}
3. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come into contact with sensitive areas, wash with copious amounts of water.⁴
4. Microbial contamination of reagents may result in an increase in nonspecific staining.
5. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
6. Do not use reagent after the expiration date printed on the vial.
7. To prevent evaporation and ensure maximum test capacity, promptly cap and remove reagents from automated instruments after each run. Leaving reagents exposed can reduce their effectiveness and the number of tests they can provide. Always store reagents as directed to maintain their integrity.
8. Dispose of all used reagents and any other contaminated disposable materials following procedures for infectious or potentially infectious waste. It is the responsibility of each laboratory to handle solid and liquid waste according to their nature and degree of hazardousness and to treat and dispose of it (or have them treated and disposed of) in accordance with any applicable regulations.
9. Follow local disposal regulations for your location along with recommendations in the Safety Data Sheet to determine the safe disposal of this product
10. The SDS is available upon request and is located at <http://biocare.net>.
11. Report any serious incidents related to this device by contacting the local Biocare representative and the applicable competent authority of the Member State or country where the user is located.

Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.



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References:

1. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
2. Occupational Safety and Health Standards: Occupational exposure to hazardous chemicals in laboratories. (29 CFR Part 1910.1450). Fed. Register.
3. Directive 2000/54/EC of the European Parliament and Council of 18 September 2000 on the protection of workers from risks related to exposure to biological agents at work.
4. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.
5. van de Rijn M, et al. Expression of cytokeratins 17 and 5 identifies a group of breast carcinomas with poor clinical outcome. Am J Pathol. 2002 Dec;161(6):1991-6.
6. Guelstein VI, et al. Myoepithelial and basement antigens in benign and malignant human breast tumors. Int J Cancer. 1993 Jan; 53(2):269-77.
7. Lui ZB, et al. Basal cytokeratin expression in relation to immunohistochemical and clinical characterization in breast cancer patients with triple negative phenotype. Tumori. 2009 Jan-Feb; 95(1):53-62.
8. Martens JE, et al. Cytokeratin 17 and p63 are markers of the HPV target cell, the cervical stem cell. Anticancer Res. 2004 Mar-Apr; 24(2B):771-5.