

Cytokeratin 7 (CK7)

Concentrated and Prediluted Monoclonal Antibody
901-061-083022

BIOCARE
M E D I C A L

Available Product Formats				
Format	Catalog Number	Description	Dilution	Diluent
Q Series— For Leica BOND-III	ALI 061 G7	7.0 mL	Ready-to-use	N/A

Intended Use:

For In Vitro Diagnostic Use

Cytokeratin 7 (CK7) [OV-TL 12/30] is a mouse monoclonal antibody that is intended for laboratory use in the qualitative identification of cytokeratin 7 (CK7) protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Summary and Explanation:

Cytokeratin 7 is an intermediate filament protein (IFP) of 54 kDa that recognizes the simple epithelium found in most glandular and transitional epithelia; but not that which is found in stratified squamous epithelia. This monoclonal antibody [OV-TL 12/30] is highly specific to cytokeratin 7 and shows no cross-reaction with other IFPs. Cytokeratin 7 is a basic cytokeratin, and is expressed in epithelial cells of ovary, lung, and breast, but not of colon or gastrointestinal tract. It is often used in conjunction with cytokeratin 20 in distinguishing ovarian, pulmonary, and breast carcinomas (CK7+) from colon carcinomas (CK7-).

Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a one-step or two-step detection procedure can be applied. A one-step procedure will feature an enzyme labeled polymer that binds the primary antibody. A two-step procedure will feature a linker antibody added to bind to the primary antibody. An enzyme-labeled polymer is then added to bind the linker antibody. These detections of the bound antibodies are evidenced by a colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Human; others not tested

Clone: OV-TL 12/30

Isotype: IgG1

Protein Concentration: Call for lot specific Ig concentration.

Epitope/Antigen: CK7

Cellular Localization: Cytoplasmic

Positive Tissue Control: Ovarian or breast cancer

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative

Storage and Stability:

Store at 2°C to 8°C. 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 2°C to 8°C.

Protocol Recommendations (Q Series – For Leica BOND-III):

ALI061 is intended for use with the Leica BOND-III. Refer to the User Manual for specific instructions for use. Recommended protocol parameters are as follows:

Protocol Name: IHC Protocol F

Detection: Bond Polymer Refine

HIER: 10 min with ER1

Peroxide Block: 5 min

Marker (Primary Antibody): 15 min

Post Primary: 8 min

Polymer: 8 min

Mixed DAB Refine: 10 min

Hematoxylin: 5 min

Limitations:

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method,

Limitations Cont'd:

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 Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

Quality Control:

Refer to CLSI Quality Standards for Design and Implementation of Immunohistochemistry Assays; Approved Guideline-Second edition (I/LA28-A2) CLSI Wayne, PA USA (www.clsi.org). 2011

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) (7)
2. 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. (8)
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The SDS is available upon request and is located at <http://biocare.net>.

Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

References:

1. Legendijk JH, *et al.* Tracing the origin of adenocarcinomas with unknown primary using immunohistochemistry: differential diagnosis between colonic and ovarian carcinomas as primary sites. *Hum Pathol.* 1998 May;29(5):491-7.
2. Tan J, *et al.* Villin, cytokeratin 7, and cytokeratin 20 expression in pulmonary adenocarcinoma with ultrastructural evidence of microvilli with rootlets. *Hum Pathol.* 1998 Apr;29(4):390-6.
3. Bouwens L. Cytokeratins and cell differentiation in the pancreas. *J Pathol.* 1998 Mar;184(3):234-9.
4. Loy TS, Calaluce RD, Keeney GL. Cytokeratin immunostaining in differentiating primary ovarian carcinoma from metastatic colonic adenocarcinoma. *Mod Pathol.* 1996 Nov;9(11):1040-4.
5. Wauters CC, *et al.* Keratins 7 and 20 as diagnostic markers of carcinomas metastatic to the ovary. *Hum Pathol.* 1995 Aug;26(8):852-5.
6. Loy TS, Calaluce RD. Utility of cytokeratin immunostaining in separating pulmonary adenocarcinomas from colonic adenocarcinomas. *Am J Clin Pathol.* 1994 Dec;102(6):764-7.
7. 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."
8. 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.



60 Berry Drive

Pacheco, CA 94553

USA



TP v1 (10/26/2021)

Tel: 800-799-9499 | www.biocare.net | Fax: 925-603-8080

Cytokeratin 7 (CK7)

Concentrated and Prediluted Monoclonal Antibody
901-061-083022

BIOCARE
M E D I C A L

Q Series antibodies are developed solely by Biocare Medical LLC and do not imply approval or endorsement of Biocare antibodies by Leica Biosystems. Biocare and Leica Biosystems are not affiliated, associated or related in any way. Leica, Leica Biosystems, BOND-MAX and BOND-III are trademarks of Leica Biosystems.

 Biocare Medical
60 Berry Drive
Pacheco, CA 94553
USA



TP v1 (10/26/2021)

Tel: 800-799-9499 | www.biocare.net | Fax: 925-603-8080