

Mouse monoclonal antibody against CK7 (Clone ISM053)

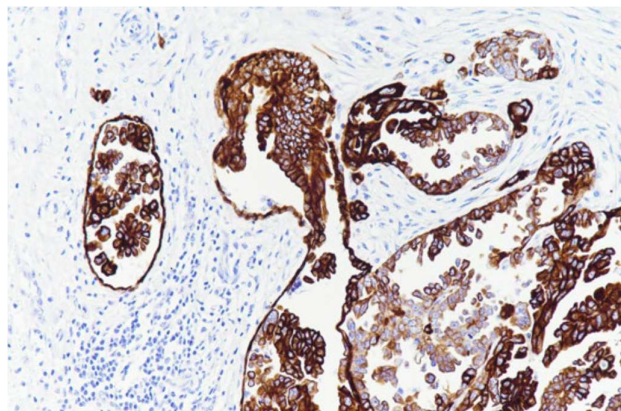


Figure 1 Human ovary carcinoma stained with anti-CK7 antibody.

Product identification

| | |
|------------|-------------------------|
| ISC056-R3 | 3 ml ready-to-use (RTU) |
| ISC056-R7 | 7 ml ready-to-use (RTU) |
| ISC056-C02 | 0.2 ml concentrated |
| ISC056-C05 | 0.5 ml concentrated |

Summary and explanation

Cytokeratins are a structural proteins family that composes the cytoskeleton of epithelial cells. About 20 types of cytokeratins have been identified to date. Furthermore, it can be classified into type I and type II, of which the former has a relatively low molecular weight and location at chromosome 17q12-21 and contains CK10-CK20. Type II CK possesses a higher molecular weight and is located at chromosome 12q11-12, and CK1-CK9 belong to type II CK CK7 is a marker of differentiation that is normally expressed by intestinal epithelial cells.

Principle of the procedure

The stated primary antibody is suitable for immunohistochemical staining of FFPE tissue sections based on specific antigen-antibody reaction. Using a detection system linked to HRP or alkaline phosphatase the antigen visualization is performed via specific binding of the primary antibody. Secondary antibody is binding to the primary antibody, and the enzyme complex labels this complex. The enzymatic activation of the chromogen results in a visible reaction product at the antigen site. Each step is incubated for a precise time and temperature and requires interposed washing steps. The specimen may then be counterstained. Results are interpreted using a light microscope.

Materials provided

| | |
|------------------------------------|--|
| Primary antibody | CK7 |
| Host | Mouse |
| Subclass | IgG |
| Clone | ISM053 |
| Species Cross-reactivity | Human. Others-not known |
| Applications | Immunohistochemistry |
| Epitope Retrieval | Heat-induced epitope retrieval |
| Ready-to-use antibody | Prediluted antibody in antibody diluent buffer |
| Recommended working dilution range | 1:50 to 1:100 |

Product label shows the specific lot number.

Prediluted antibody is ready-to-use and optimized for staining. No further dilution, reconstitution, mixing, or titration is needed.

Antibody concentrate is optimized for dilution within dilution range using InSituChem® Antibody Diluent for IHC (Cat. No. D005-50). Indicated dilution range should be considered as recommendation and depends on different facts (tissue, fixation, incubation conditions, etc.). Optimum dilution to be determined in user's own system.

Materials required but not provided

The following materials may be required for staining but are not provided with the primary antibody.

- Positive and negative controls
- Microscope slides (positively charged) and cover slips
- Water bath
- Humidified chamber
- Staining jars
- Stopwatch
- Xylene or xylene substitute
- Ethanol
- Deionized or distilled water
- Antigen retrieval reagent, e.g. Antigen Enhancer (HIER buffer), Cat. No. D004-500
- Detection system, e.g. IHC Complete Detection system (Goat anti mouse/rabbit HRP, DAB staining), Cat. No. D001-15
- Wash buffer: e.g. IHC Wash Buffer, Cat. No. D003-500
- Tap water/bluing reagent (e.g. ammonia water)
- Light microscope

Storage and handling

Store at 2 - 8 °C.

When stored correctly antibody is stable to the expiration date indicated on the vial. Do not use after expiration date.

To ensure proper reagent delivery and stability of the antibody, replace the dispenser cap after every use and immediately place the bottle cool in an upright position.

Staining procedure

1. Cut 3-4 μm section of formalin-fixed paraffin-embedded tissue and place on positively charged slides.
2. Dry at 65°C for 2 hours.
3. Deparaffinize, rehydrate, and epitope retrieve. Upon completion, rinse with 3 changes of distilled or deionized water.
4. If using HRP detection system, place slides in peroxide block for 10 minutes; rinse. If using AP detection system, omit this step.
5. Apply the antibody and incubate for 60 minutes; rinse.
6. Apply the InSituVison™ Polymer Rabbit/Mouse Detection System for 30 minutes; rinse.
7. Apply ample amount of DAB or AEC chromogen and incubate; rinse.
8. Dehydrate and coverslip.

Interpretation of results

The immunostaining procedure causes a colored reaction product to precipitate at the antigen sites localized by the primary antibody.

Cellular localization: Cytoplasm.

A qualified pathologist experienced in immunohistochemistry procedures must evaluate positive and negative tissue controls before interpreting patient specimens.

Positive staining intensity should be assessed within the context of any background staining of the negative reagent control.

Note: A negative result means that the antigen in question was not detected, but not that the antigen is not present in the cells/tissues tested. An antibody panel may be used to support the results in some circumstances. Additionally, the morphology of each tissue sample should be examined utilizing a hematoxylin and eosin stained section. A qualified pathologist must interpret the patient's morphologic findings and pertinent clinical data.

Warnings and precautions

1. Application only by qualified and trained personnel.
2. There are no estimated health risks, if the product is used as directed. MSDS is available on request.
3. Product contains sodium azide as preservative. Pure sodium azide is toxic. The concentration of sodium azide in this reagent is < 0.1 % and is not classified hazardous. See MSDS.
4. As with any product derived from biological sources, proper handling procedures should be used.
5. Do not use reagents after expiration date.
6. Take reasonable precautions when handling reagents. Use protective clothing and gloves.
7. All hazardous materials should be disposed according to guidelines for hazardous waste disposal. Materials of human or animal origin should

be handled as biohazardous materials and disposed of with proper precautions.

8. Avoid microbial contamination of reagents as it may cause incorrect results.

Literature

[1] Ş. Çoban and others, Evaluation of Barrett's esophagus with CK7, CK20, p53, Ki67, and COX2 expressions using chromoendoscopic examination, Diseases of the Esophagus, Volume 26, Issue 2, 1 March 2013, 189–196




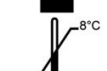



[2] Yasir S, Herrera L, Gomez-Fernandez C, Reis IM, Umar S, Leveillee R, Kava B, Jorda M. CD10+ and CK7/RON- immunophenotype distinguishes renal cell carcinoma, conventional type with eosinophilic morphology from its mimickers. Appl Immunohistochem Mol Morphol. 2012 Oct;20(5):454-61. doi: 10.1097/PAI.0b0.

Date of publication or revision

2024-06-10

Change(s) made: -

Explanation of symbols

| | |
|---|-------------------------------|
|  | Catalog number |
|  | Batch code |
|  | Use by |
|  | Temperature limitation |
|  | Do not use if package damaged |
|  | Consult instructions for use |
|  | Caution |