Cytokeratin, Multi (Epithelial Marker) (C11)

Format	Catalog No.	Pack size	Dilution
Concentrated	G0381 A, B, C	0.1, 0.5, 1.0 mL	1:100 - 200
Prediluted	G0381 AA, BB	6.0, 3.0 mL	Ready to use

ANTIBODY SPECIFICATIONS

- **HOST SPECIES**: Mouse
- **CLONE**: C11
- **ISOTYPE**: IgG1
- **CELLULAR LOCALIZATION**: Cytoplasmic
- **IMMUNOGEN**: Keratin-enriched preparation from cultured human A431
- **MOLECULAR WEIGHT**: Multiple
- **SPECIES REACTIVITY:** Human, Cow, Rat, Mouse, Guinea pig, Frog, Goat, Marmoset, and Pig. Others not known.
- **POSITIVE CONTROLS:** A431 cells, skin, colon carcinoma.

INTENDED USE

This antibody is intended **for research use only (RUO)** and is not approved for diagnostic or therapeutic applications. It is optimized for the detection of Cytokeratin protein in formalin-fixed, paraffin-embedded (FFPE) human tissues by immunohistochemistry (IHC).

SUMMARY AND APPLICATION

At least 20 distinct polypeptides are found in human epithelial tissues, and cytokeratin pan is a member of the subfamily of intermediate filament proteins that are distinguished by their exceptional biochemical diversity. The molecular weight of cytokeratins ranges from 40 kDa to 68 kDa, and their isoelectric pH falls between 4.9 and 7.8. The numbers 1 through 20 correspond to the distinct human cytokeratins. The diverse epithelia in the human body typically express cytokeratins, which are indicative of the kind of epithelium as well as the level of differentiation or maturation within the epithelium. The expression patterns of cytokeratin subtypes are increasingly being used to differentiate between various forms of epithelial cancers. Cytokeratin antibodies are helpful in cytopathology and flow cytometric studies in addition to aiding in the differential diagnosis of tumours utilising immunohistochemistry on tissue sections.

SCIENTIFIC BACKGROUND

It has been observed that this broad-spectrum antibody can distinguish between epithelial and non-epithelial tumours. Numerous studies have demonstrated the value of keratins as indicators in tumour diagnosis and cancer research.

RECOMMENDED USAGE

- **IHC Protocol Highlights:**
    - Dilution: 1–2 µg/mL

  - Incubation: 30 minutes at room temperature
  - Antigen Retrieval: Heat in 10 mM Tris with 1 mM EDTA (pH 9.0) at 95°C for 45 minutes, followed by cooling
- **Specimen Type**: FFPE sections, preferably ~4 µm

FORMULATION & STORAGE:

- Buffer: 10 mM PBS, 0.05% BSA, 0.05% sodium azide
- Storage:
  - Dilution: 1–2 µg/Ml
  - Without azide: –20 to –80°C
- Shelf Life: 24 months under proper conditions
- Hazard Classification: Non-hazardous; no MSDS required

LIMITATIONS

- Interpretation must be made by a qualified pathologist
- Tissue fixation and handling may affect staining quality
- Negative results do not always indicate absence of antigen—consider panel testing

PRECAUTIONS

- Contains 0.05% sodium azide – avoid ingestion and contact with skin or mucosa
- Wear gloves and avoid contact with eyes or mucosa
- Do not use reagents past expiration or if packaging appears compromised
- Do not pipette by mouth or reuse slides/containers without proper sterilization

TECHNICAL SUPPORT

For technical assistance, please contact Genebio Solution's Technical Support at www.genebiosolution.com