

Cytokeratin 5 & 6 (D5/16B4)

Format	Catalog No.	Pack size	Dilution
Concentrated	G2133 A, B, C	0.1, 0.5, 1.0 mL	1:100 - 200
Prediluted	G2133 AA, BB	6.0, 3.0 mL	Ready to use

ANTIBODY SPECIFICATIONS

- **HOST SPECIES:** Mouse
- **CLONE:** D5/16B4
- **ISOTYPE:** IgG1
- **CELLULAR LOCALIZATION:** Cytoplasmic
- **IMMUNOGEN:** Purified human cytokeratin 5 & 6.
- **MOLECULAR WEIGHT: Cytokeratin 5:** Generally considered to have a molecular weight of around 58 kDa ; **Cytokeratin 6:** Typically has a molecular weight of around 56 kDa.
- **SPECIES REACTIVITY:** Human; others not tested
- **POSITIVE CONTROL:** Mesothelioma, Prostate

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 5 and 6 protein in formalin-fixed, paraffin-embedded (FFPE) human tissues by immunohistochemistry (IHC).

SUMMARY AND APPLICATION

The basic, high molecular weight cytokeratin 5 (58 kDa) is expressed in the superficial, intermediate, and basal cell layers of stratified epithelia, as well as in complex epithelia, transitional epithelia, mesothelial cells, and mesothelioma. Proliferating squamous epithelium also expresses Cytokeratin 6 (56 kD), a high molecular weight, basic type cytokeratin that is frequently combined with Cytokeratin 16.

SCIENTIFIC BACKGROUND:

Nearly all malignant mesotheliomas have positive cytokeratin 5 and 6 antibody results, but lung adeno-carcinomas hardly ever do. Both squamous and undifferentiated large-cell carcinomas have positive expression of CK 5 and 6. Less than 10% of prostate, colon, and breast cancers exhibit positive staining for this antigen. Antibodies to cytokeratin 5 and 6 have also been effectively employed as a marker of myoepithelial cells in the prostate to identify cancer.

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