

Rabbit Anti-Cytokeratin 5 [EP24]: RM0083, RM0083RTU7

Intended Use: For Research Use Only

Description: Keratins are cytoplasmic intermediate filament proteins expressed by epithelial cells. The mitotically active basal layers of most stratified squamous epithelia express 10% to 30% of their total protein as keratin. The two keratins specifically expressed in these cells are the type II keratin CK5 and its corresponding partner, type I keratin CK14, both of which are essential for the formation of 8-nm filaments. CK5 and calretinin have been useful in different studies as immunohistochemical markers suggestive of mesothelioma, and their expression is analyzed for the histological differential diagnosis with adenocarcinomas, especially when confronting with metastatic tumors of unknown origin. CK5 labels myoepithelial cells of breast and prostate basal cells. A cocktail of CK5, CK14 and p63, has been used as sensitive and specific basal cell marker of basal-like phenotype of breast carcinoma and to differentiate normal and prostate cancer. Loss-of-function mutations in the keratin 5 gene (KRT5) affected family members and in six unrelated patients with Dowling-Degos disease (DDD), an autosomal dominant genodermatosis. This suggests a crucial role for keratins in the organization of cell adhesion, melanosome uptake, organelle transport, and nuclear anchorage.

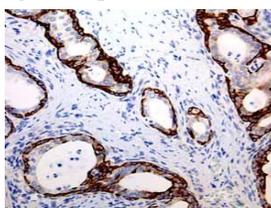
Specifications:

Clone: EP24
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Immunogen: A synthetic peptide corresponding to residues near the C-term of human CK5 protein
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
Cytokeratin 5 Concentrated	RM0083	1 ml
Cytokeratin 5 Prediluted	RM0083RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Skin, mesothelioma
 Concentrated Dilution: 50-200
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual
 * Result should be confirmed by an established diagnostic procedure.



FFPE human Prostate hyperplasia stained with anti-CK5 using DAB

References:

1. Modeling and validating three dimensional human normal cervix and cervical cancer tissues in vitro. Karolina Zuk A, et al. J Biomed Res 31:240-247, 2017.
2. Detection and quantification of epithelial progenitor cell populations in human healthy and IPF lungs. Smirnova NF, et al. Respir Res 17:83, 2016.
3. Three differentiation states risk-stratify bladder cancer into distinct subtypes. Volkmer JP, et al. Proc Natl Acad Sci U S A 109:2078-83, 2012.

Doc. 100-RM0083
Rev. A