

Mouse Anti-Cytokeratin 5 [KRT5/2080]: MC0429, MC0429RTU7

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:

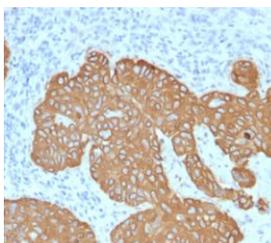
Clone: KRT5/2080
Source: Mouse
Isotype: IgG1k
Reactivity: Human
Localization: Cytoplasm
Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC
Package:

Description	Catalog No.	Size
Cytokeratin 5 Concentrated	MC0429	1 ml
Cytokeratin 5 Prediluted	MC0429RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Skin, mesothelioma
Concentrated Dilution: 50-200
Pretreatment: Tris EDTA pH9.0, 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 basal cell carcinoma stained with CK5 using DAB

References:

1. YAP drives cutaneous squamous cell carcinoma formation and progression. Karolina Zuk A, et al. Elife 7:N/A, 2018.
2. Modeling and validating three dimensional human normal cervix and cervical cancer tissues in vitro. Vincent-Mistiaen Z, et al. J Biomed Res 31:240-247, 2017.
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.

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