

**Rabbit Anti-Cytokeratin 17/19 [MD31R]: RM0334**

**Intended Use:** For Research Use Only

**Description:** Keratins (cytokeratins) are intermediate filament proteins that are mainly expressed in epithelial cells. Keratin heterodimers composed of an acidic keratin (or type I keratin, keratins 9 to 23) and a basic keratin (or type II keratin, keratins 1 to 8) assemble to form filaments. Keratin isoforms demonstrate tissue- and differentiation specific profiles that make them useful as biomarkers. Research studies have shown that mutations in keratin genes are associated with skin disorders, liver and pancreatic diseases, and inflammatory intestinal diseases. Keratin 17 is involved in wound healing and cell growth, two processes that require rapid cytoskeletal remodeling. Keratinocytes deficient in keratin 17 exhibit abnormal Akt/mTOR signaling and fail to produce an increase in translation, cell size, or growth; these cells also exhibit abnormal 14-3-3 $\sigma$  localization. As 14-3-3 $\sigma$  typically associates with keratin 17, these results imply that Akt/mTOR signaling results in sequestration of 14-3-3 $\sigma$  with keratin 17 in the cytosol, which is required for translation and cell growth. Phosphorylation of keratin 17 on Ser44 may provide a docking site for 14-3-3 $\sigma$  binding.

**Specifications**

Clone: MD31R  
Source: Rabbit  
Reactivity: Human, mouse, rat  
Isotype: IgG  
Localization: Cytoplasm  
Formulation: Purified antibody in 0.2% BSA and 15mM sodium azide (NaN<sub>3</sub>)  
Storage: Store at 2°- 8°C. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles  
Applications: IHC, ICC, WB  
Package:

Description	Catalog No.	Size
Cytokeratin 17/19 Concentrated	RM0334	1 ml

**IHC Procedure\***

Positive Control Tissue: Breast cancer  
Concentrated Dilution: 50-100  
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.