

**Mouse Anti-Desmoglein-3 [5G11]: MC0594, MC0594RTU7**

**Intended Use:** For Research Use Only

**Description:** Desmoglein-3 (DSG3) is a calcium binding membrane protein that is localized desmosome cellular junctions and interacts with plaque proteins and intermediate filaments at cell-cell adhesion points. Desmosomes are cell-cell junctions between epithelial, myocardial and other cells types. In human keratinocytes, Desmoglein-3 (DSG3) is raft associated and disruption of rafts prevents desmosome assembly. DSG3 is one of four sister proteins in the desmoglein family. DSG3 is also the autoantigen for pemphigus vulgaris (PV) a lethal skin disease that is a result of autoantibodies against DSG3. DSG3 is over-expressed in lung squamous cell carcinomas (SQCC) but had very limited expression in both adenocarcinomas and non-neoplastic lungs. Using immunohistochemistry, the sensitivity and specificity of DSG3 for lung cancers were 98% and 99%, respectively, which is similar to that of p40. Therefore, DSG3 can be a useful ancillary marker to separate SQCC from other subtypes of lung cancer.

**Specifications:**

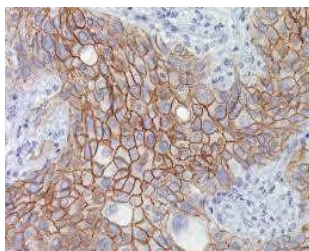
Clone: 5G11  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: Recombinant human DSG3 extracellular protein fragment  
 Localization: Membrane  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN3)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., ICC/IF, WB  
 Package:

Description	Catalog No.	Size
Desmoglein-3 Concentrated	MC0594	1 ml
Desmoglein-3 Prediluted	MC0594RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: SqCC  
 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 SCC stained with anti-Desmoglein-3 using DAB

**References:**

1. DSG3 facilitates cancer cell growth and invasion through the DSG3-plakoglobin-TCF/LEF-Myc/cyclin D1/MMP signaling pathway. Chen YJ1, PLoS One. May 30;8(5), 2013.
2. Desmoglein isotype expression in the hair follicle and its cysts correlates with type of keratinization and degree of differentiation. Wu, Hong, et al. J. Invest. Dermatol., 120: 1052-7, 2003.
3. Protection against pemphigus foliaceus by desmoglein 3 in neonates. Wu, H, et al. N. Engl. J. Med., 343: 31-5, 2000.

Doc. 100-MC0594  
Rev. A