

# Desmoglein-3 (Clone 5G11)

## Mouse Monoclonal Antibody

**Specificity:** Human. Others-not tested

**Immunogen:** A-431 cell shavings of human origin

**Ig Class:** IgG1/κ

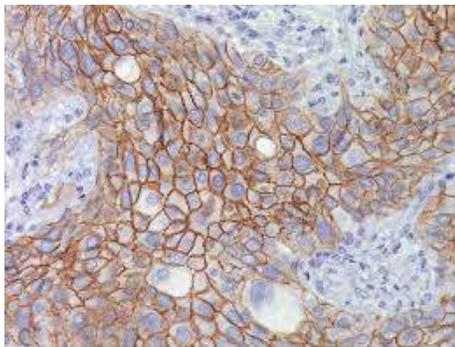
**Storage:** Store vial at 4°C. When stored at 2-8°C, this antibody is stable for 24 months

**Staining procedures:** Use formalin-fixed and paraffin-embedded sections. *Retrieval conditions:* Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. *Detection methods:* Polymer anti-mouse/rabbit Ig detection system. *Working dilution:* 1:100; *Positive Control:* squamous cell carcinoma. *Cellular Localization:* membrane.

**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.

**Intended Use:** This antibody is intended for in vitro diagnostic (IVD) use. Desmoglein-3 (clone 5G11) mouse monoclonal primary antibody is intended for laboratory use in the detection of desmoglein-3 in formalin-fixed, paraffin-embedded tissue by immunohistochemical (IHC) staining. The staining results should be interpreted by qualified pathologists in conjunction with the patient's relevant clinical history.

**Supplied As:** Purified antibody in Tris-HCl buffer containing stabilizing protein and <0.1% sodium azide.



Formalin-fixed, paraffin-embedded human squamous cell carcinoma stained with anti-desmoglein-3 antibody using peroxidase-conjugate and DAB chromogen. Note membranous staining of tumor cells

### References:

1. Huang W, et al. *Hum Pathol.* 2013; 44:1989-97.
2. Tacha D, et al. *Appl Immunohistochem Mol Morphol.* 2012; 20:201-7.

**REF** Z2279 (1.0 ml) (Concentrate)