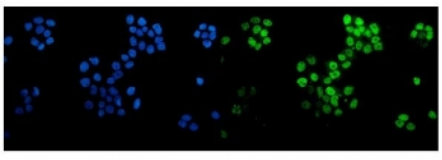
# p63 Antibody for FACS / TP63 Flow Cytometry Antibody (R31167)

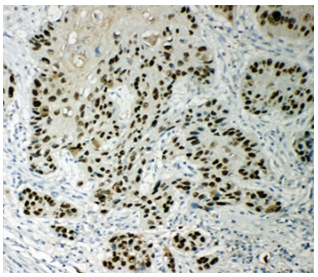
| Catalog No. | Formulation | Size |
|---|---|---|
| R31167 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

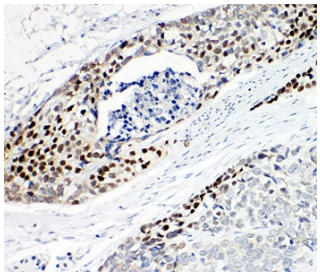
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity |
| **Buffer** | Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide/thimerosal |
| **UniProt** | Q9H3D4 |
| **Applications** | Western blot: 0.5-1ug/ml<br>Immunohistochemistry (FFPE): 0.5-1ug/ml<br>Immunocytochemistry: 0.5-1ug/ml<br>Immunofluorescence: 5ug/ml<br>Flow cytometry: 1-3ug/million cells |
| **Limitations** | This p63 antibody is available for research use only. |



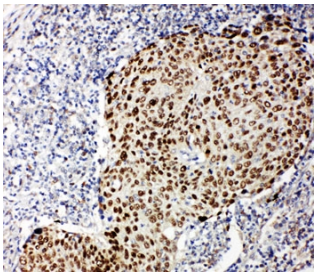
p63 Antibody A431 IF. Immunofluorescent staining of FFPE human A431 cells with p63 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



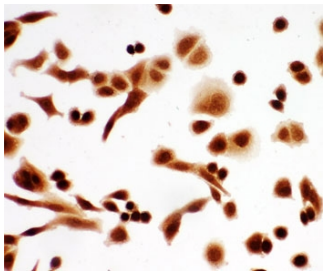
p63 Antibody Esophageal Squamous Cell Carcinoma IHC. Immunohistochemistry testing of p63 antibody and FFPE human esophageal squamous cell carcinoma tissue.



p63 Antibody Human Esophageal Squamous Cell Carcinoma Tissue IHC. Immunohistochemistry testing of p63 antibody and FFPE human esophageal squamous cell carcinoma tissue.



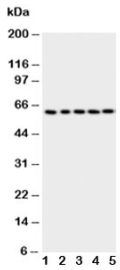
p63 Antibody Lung Cancer IHC. Immunohistochemistry testing of p63 antibody and human lung cancer tissue.



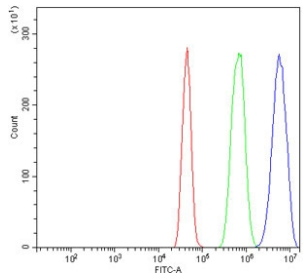
p63 Antibody A549 ICC. Immunocytochemistry testing of human A549 cells with p63 antibody.




p63 Antibody Mouse and Rat WB. Western blot testing of 1) rat heart and 2) mouse thymus lysate (50ug/lane) with p63 antibody. Expected molecular weight: 63-77 kDa.




p63 Antibody Human Cell Line WB. Western blot testing of human 1) HeLa, 2) SMMC-7721, 3) COLO-320, 4) A549 and 5) SGC-7901 cell lysate with p63 antibody. Expected molecular weight: 63-77 kDa.




p63 Antibody for FACS. Flow cytometry analysis of human A431 cells using a rabbit polyclonal p63 antibody for FACS demonstrates a clear rightward fluorescence shift (blue) relative to isotype control (green) and unstained cells (red), consistent with intracellular detection of Tumor protein 63 (TP63). Cells were fixed and permeabilized to allow access to the nuclear target, resulting in distinct separation of TP63-positive signal from background. The tight peak distribution indicates uniform nuclear expression within the cell population, supporting reliable gating of TP63-expressing cells. Staining was performed at 1 ug per million cells with goat sera blocking to reduce non-specific binding, enabling accurate assessment of TP63 expression by flow cytometry.

## Description

Tumor protein 63 (TP63) is a nuclear transcription factor of the p53 family that regulates epithelial development, basal cell identity, and lineage commitment in stratified tissues. In this context, p63 Antibody for FACS is specifically suited for intracellular flow cytometry applications, enabling quantitative detection of nuclear TP63 expression across large cell populations following fixation and permeabilization.

p63 antibody, also known as TP63 antibody or Tumor protein 63 antibody in the literature, is widely recognized as a defining marker of basal epithelial cells. Because TP63 is confined to the nucleus, flow cytometry analysis requires intracellular staining strategies, making this application inherently different from surface-marker FACS workflows. A properly optimized TP63 Flow Cytometry Antibody allows reliable penetration into fixed cells and consistent nuclear labeling, enabling accurate measurement of TP63-positive versus TP63-negative populations in heterogeneous samples.

The FACS differentiator is particularly strong for TP63 because it transforms a traditionally morphology-based marker into a quantitative population-level readout. p63 Antibody for FACS enables gating strategies that distinguish TP63-high basal-like cells from TP63-low or negative differentiated cells, supporting clear separation of epithelial subpopulations. This is especially valuable in cancer research, stem cell biology, and epithelial differentiation models, where TP63 expression defines functionally distinct cell states and lineage hierarchies.

In contrast to imaging-based methods, flow cytometry provides statistical power and scalability, allowing thousands to millions of cells to be analyzed rapidly. This makes it possible to assess shifts in TP63 expression across experimental conditions, monitor treatment responses, and quantify subtle changes in cell identity that would be difficult to resolve visually. The ability to pair TP63 intracellular staining with additional markers in multiparametric flow cytometry panels further enhances its utility for dissecting complex cellular phenotypes.

TP63 exists in multiple isoforms, including TAp63 and deltaNp63 variants, which contribute to proliferation, differentiation, and epithelial maintenance. In FACS applications, these isoforms are typically detected collectively as nuclear signal intensity, with distribution patterns reflecting underlying biological heterogeneity. This enables researchers to use TP63 as a readout for epithelial state transitions and basal cell enrichment within mixed populations.

A rabbit polyclonal p63 antibody is well suited for intracellular flow cytometry due to its ability to recognize multiple epitopes, improving signal robustness after fixation and permeabilization. This is particularly important for nuclear targets, where epitope accessibility can vary depending on sample preparation. Overall, Tumor protein 63 antibody is optimally positioned for FACS-based workflows that require precise, quantitative analysis of nuclear protein expression, making it a powerful tool for profiling epithelial cell populations and tracking TP63-driven biological changes.

Learn more about p63 expression, basal cell identification, epithelial differentiation, and stem cell biology on our p63 Antibody / Basal Cell Marker Antibody page.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the p63 Antibody for FACS / TP63 Flow Cytometry Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

Amino acids 82-98 (DMDARRNKQQRIKEEGE) were used as the immunogen for this p63 Antibody for FACS / TP63 Flow Cytometry Antibody.

## Storage

After reconstitution, the p63 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

## Alternate Names

TP63 flow cytometry antibody, Tumor protein 63 FACS antibody, p63 intracellular staining antibody, TP63 nuclear protein flow antibody


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