

# Anti- $\beta$ -Catenin-165Ho

## Pathologist-Verified Clone for Imaging Mass Cytometry™

Catalog: 3165032D

Package size and concentration: 25  $\mu$ g, 0.5 mg/mL

Storage: Store at 4 °C. Do not freeze.

Reactivity: Rat, Mouse, Human, Guinea Pig, Monkey

Clone: D13A1

Isotype: Rabbit IgG

Formulation: Antibody stabilizer with 0.05% sodium azide

Application: IMC-Paraffin

## Technical Information

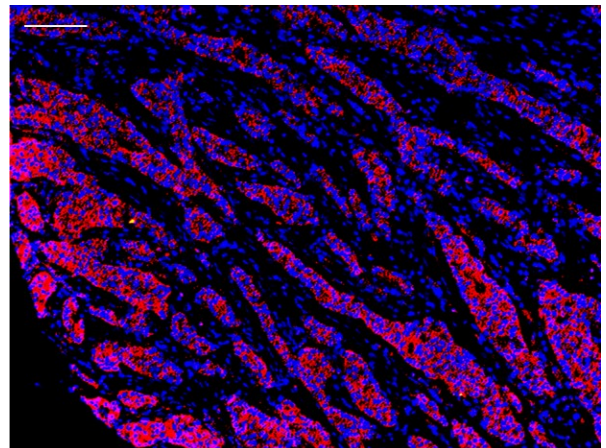
**Application:** The metal-tagged antibody is designed and formulated for the application of Imaging Mass Cytometry (IMC™) using the Fluidigm Hyperion™ Imaging System on formalin-fixed, paraffin-embedded (FFPE) tissue sections.

**Quality control:** Each lot of conjugated antibody is quality control-tested by Imaging Mass Cytometry on tissue sections.

**Recommended concentration:** For optimal performance it is recommended that the antibody be titrated for the desired application. Suggested initial dilution range:  
IMC-Paraffin: 1:100 to 1:400

## Description

$\beta$ -catenin is a 92 kDa intracellular protein that binds to the cytoplasmic tail of E-cadherin to mediate cellular adhesion. In addition, it is a key downstream effector in the Wnt signaling pathway. In the absence of Wnt binding its receptor,  $\beta$ -catenin is phosphorylated and resides in the cytoplasm, where it is eventually targeted for degradation by ubiquitination. Upon Wnt binding,  $\beta$ -catenin becomes dephosphorylated, translocates to the nucleus and modulates gene expression in partnership with the transcription factors T cell factor (TCF) and lymphocyte enhancer binding factor (LEF). Expression of  $\beta$ -catenin is found in a wide variety of nonimmune and immune tissues, including thymocytes and T and B lymphocytes. Clone D13A1 recognizes endogenous  $\beta$ -catenin protein only when residues Ser33, Ser37 and Thr41 are not phosphorylated.



Human breast carcinoma (FFPE) stained with 165Ho-anti- $\beta$ -catenin (D13A1) at a dilution of 1:200 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = 100  $\mu$ m.

## References

Chang, Q. et al. "Staining of frozen and formalin-fixed, paraffin-embedded tissues with metal-labeled antibodies for imaging mass cytometry analysis." *Current Protocols in Cytometry* 82 (2017): 12.47.1–12.47.8.

Giesen, C. et al. "Highly multiplexed imaging of tumor tissues with subcellular resolution by mass cytometry." *Nature Methods* 11 (2014): 417–22.

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