

# Anti-BRCA1 (MS110)-172Yb

## Pathologist-Verified Clone for Imaging Mass Cytometry™

**Catalog number:** 3172030D

**Package size and concentration:** 25 µg, 0.5 mg/mL

**Clone:** MS110

**Isotype:** Mouse IgG1

**Pathologist-verified on:** Human FFPE

**Fluidigm tested on:** Human FFPE, Mouse FFPE

**Reported reactivity:** Human, Mouse

**Formulation:** Antibody stabilizer with 0.05% sodium azide

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

**Application:** IMC paraffin

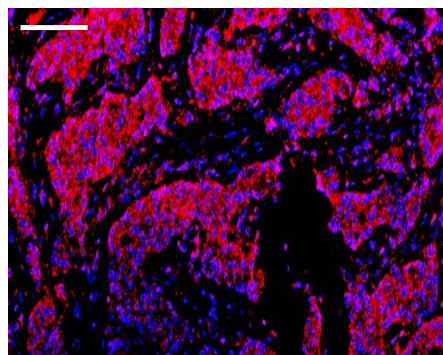
## Technical Information

**Description:** BRCA1 (breast cancer type 1 susceptibility protein) is an important member of the DNA repair pathway, and it functions as a tumor suppressor. It interacts with a wide range of proteins involved in the detection of damaged DNA and activation of appropriate repair pathways, including the Mre11-Rad50-NBS1 (MRN) complex, which is responsible for homologous recombination in the repair of DNA double-stranded breaks. BRCA1 also plays a role in cell cycle regulation, where decreased expression of BRCA1 leads to cell cycle arrest through p53 and p21 genes. BRCA1 and BRCA2 are frequently mutated in cases of hereditary breast and ovarian cancer.

**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: 1:25 to 1:100



Human breast carcinoma (FFPE) stained with 172Yb-anti-BRCA1 (MS110) at a dilution of 1:50 (red pseudocolor) and iridium DNA intercalator (blue pseudocolor). Heat-mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Scale bar size = 100 µm.

## 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.

## Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to [fluidigm.com/sds](http://fluidigm.com/sds) and search for the SDS using either the product name or the part number.

**For technical support visit [techsupport.fluidigm.com](http://techsupport.fluidigm.com). | For general support visit [fluidigm.com/support](http://fluidigm.com/support).**

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