

## Anti-Human CD45 (HI30)-106Cd

**Catalog number, package size:** 3106001B, 100 tests  
3106001C, 25 tests

**Clone:** HI30

**Other Names:** LCA, T200

**Isotype:** Mouse IgG1,  $\kappa$

**Reactivity:** Human, Chimpanzee

**Tag:** 106Cd

**Formulation:** Antibody stabilizer with 0.1% preservative

**Storage:** Store at 2–8 °C. Do not freeze.

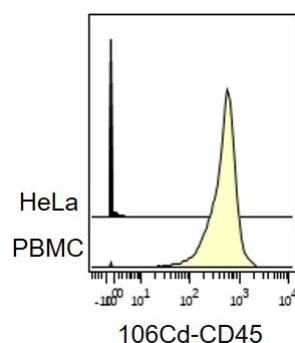
**Application:** CyTOF® suspension mass cytometry

### Technical Information

**Description:** CD45, also known as leukocyte common antigen (LCA) and T200, is a type I transmembrane glycoprotein. It is expressed on the plasma membrane of all hematopoietic cells, except mature red blood cells, platelets, and some plasma cells. Its intracellular domain is a tyrosine phosphatase that serves to regulate signal transduction in most hematopoietic cells.

**Application:** The metal-tagged antibody is designed and formulated for the application of suspension mass cytometry using the Fluidigm CyTOF suspension systems on healthy human PBMC.

**Validation:** Each lot of conjugated antibody is quality control-tested by CyTOF suspension mass cytometry analysis of stained cells using appropriate positive and negative cell staining and/or activation controls.



Human HeLa cells (top) and human PBMC (bottom) were stained with anti-CD45 (HI30)-106Cd. Total viable cells are displayed in the analysis.

**Recommended use:** Use 1  $\mu$ L for up to  $3 \times 10^6$  live cells in 100  $\mu$ L staining volume. We recommend titrating the antibody for optimal performance for each of the desired applications. Centrifuge the stock antibody at  $12,000 \times g$  for 5 min to sediment antibody aggregates. Fixation is typically used in intracellular staining protocols or in barcoding with the Cell-ID™ 20-Plex Pd Barcoding Kit (PN 201060). However, fixing before antibody staining can affect epitope structure and antibody binding, with the impact varying on the type and concentration of fixative and the protocol used. It is therefore important to perform a small, preliminary antibody staining experiment, with and without fixation, using non-critical samples.

**NOTE** The 106Cd and 110Cd metal isotopes are not compatible for use with the Cell-ID 20-Plex Pd Barcoding Kit due to direct mass overlap with the 106Pd and 110Pd metal isotopes in the barcoding kit.

### Applicable Protocols

Before using this product, refer to the instructions in the Maxpar® Cell Surface Staining with Fresh Fix Protocol (400276).

### References

Bandura, D.R. et al. "Mass cytometry: technique for real time single cell multitarget immunoassay based on inductively coupled plasma time-of-flight mass spectrometry." *Analytical Chemistry* 81 (2009): 6,813–22.

Bendall, S.C. et al. "Single-cell mass cytometry of differential immune and drug responses across a human hematopoietic continuum." *Science* 332 (2011): 687–696.

Bodenmiller, B. et al. "Multiplexed mass cytometry profiling of cellular states perturbed by small-molecule regulators." *Nature Biotechnology* 30 (2012): 858–867.

Ornatsky, O.I. et al. "Highly multiparametric analysis by mass cytometry." *Journal of Immunological Methods* 361 (2010): 1–20.

### Safety

Use standard laboratory safety protocols. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to [fluidigm.com](http://fluidigm.com) and search for SDS-00021.

**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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