## Anti-CD200 Neutralizing Antibody

Catalog: 102062 Lot: 231128

**Product Information** 

**Description:** This anti-CD200 (cluster of differentiation 200) neutralizing antibody is a purified,

recombinant monoclonal antibody that recognizes human CD200. This antibody has

been tested for specific binding to purified recombinant CD200.

**Background:** CD200 (cluster of differentiation 200), also known as OX-2, is type 1 membrane glycoprotein

of the immunoglobulin supergene family. It is structurally related to the B7 family of costimulatory receptors. It is found in cells of the myeloid and lymphoid lineage, such as activated T and B cells, neurons, endothelial cells, and cancer cells. Its expression depends on IFN- $\gamma$  (interferon gamma) and TNF- $\alpha$  (tumor necrosis factor alpha), and it is regulated by C/EBP- $\beta$ . When bound to CD200R (CD200 receptor) it contributes to the formation of an immunosuppressive TME (tumor microenvironment), via a Dok1 (docking protein 1), Dok2 and RasGAP dependent mechanism, leading to T cell responses inhibition, NK cell cytotoxicity decrease, potentiation of Treg cell expansion and decrease of other immune responses to cancer cells. CD200 can be found in a soluble form at high levels in the serum of cancer patients, linking to a poor prognosis. A splice variant missing exon 2, CD200tr, can also be formed, which may act as a competitive inhibitor for full length CD200. In addition to cancer, CD200 is linked to auto-immune disorders, inflammation, infection, and graft survival. Samalizumab, an anti-CD200 monoclonal antibody, has resulted in positive outcomes when used in patients suffering from CLL (chronic lymphocytic leukemia) and MM

(multiple myeloma).

Species: Human IgG1

Clonality: Monoclonal
Concentration: 1.50 mg/ml
Expression System: HEK293
Purity: ≥90%

**Format:** Aqueous buffer solution.

Formulated In: 8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol

MW: Heavy Chain: 49 kDa + glycans; Light Chain: 24 kDa + glycans

**Glycosylation:** This antibody runs at a higher MW by SDS-PAGE due to glycosylation.

**Stability:** At least 12 months at -80°C.

Storage: -80°C

**Instructions for Use:** Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before

opening. Aliquot into small volumes and flash freeze for long term storage. Avoid

multiple freeze/thaw cycles.

**Assay Conditions:** CD200/CD200R1 Neutralization Assay: This assay was performed following the protocol

described in CD200:CD200R1 [Biotinylated] Inhibitor Screening Chemiluminescence Assay Kit (#82285) with increasing concentrations of Anti-CD200 Neutralizing

Antibody.

**Applications:** Useful for binding studies, and as a positive control in neutralization assays.



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**Quality Control Data** 

## 4-20% SDS-PAGE Coomassie Staining

## 1 2 - 250 kDa - 150 kDa - 100 kDa - 75 kDa - 50 kDa - 37 kDa - 25 kDa - 20 kDa - 15 kDa - 10 kDa

## CD200:CD200R1-Biotin Neutralizing Assay



