Leinco Technologies, Inc.
excellence in early discovery research™

# Anti-Mouse CD200R

## Purified No Carrier Protein

**Hybridoma Monoclonal Antibody**

**Product Information**

| | |
|---|---|
| **Product No.:** | C2479 |
| **Clone:** | OX-131 |
| **Isotype:** | Rat IgG1 κ |

### Product Description

**Specificity:**
OX131 detects both mouse isoforms of CD200R: CD200R(1) from C57BL/6 mice and CD200R_NOD, also known as CD200R(2), from NOD mice. OX131 also cross-reacts with CD200RLe, which is not present in most mouse strains that contain CD200R. OX131 is therefore specific to CD200R in mouse strains that lack CD200RLe, such as C57BL/6 and BALB/c.

**Antigen Distribution:**
CD200R is expressed on various types of leukocytes, including myeloid cells, macrophages, basophils, mast cells, eosinophils, neutrophils, and some dendritic cells. CD200R is not expressed on naïve T and B cells. T cell activation results in limited induction of CD200R.

**Background:**
CD200R is the cognate receptor of CD200, and when paired, acts as an inhibitor-type receptor that inhibits the ERK pathway via a phosphotyrosine motif that recruits DOK2 and RasGAP[1]. Two CD200R alleles, differing by seven amino acids in the extracellular region, have been identified, with one allele present in NOD mice and the other in C57BL/6 mice. Both alleles are capable of binding CD200. CD200R/CD200 interactions are of interest for cancer therapeutics. CD200 is an immune checkpoint molecule[2]. The CD200/CD200R signaling pathway inhibits natural killer cell activation, cytotoxic T cell functions, and M1-polarized macrophage activity.

OX131 was generated by immunizing DA rats with a recombinant protein consisting of the extracellular region of CD200R combined with rat CD4d3+4 as a tag[1]. Hybridomas were created by fusing to the Y3 mouse hybridoma line and screened by a flow cytometry-based binding assay. OX131 blocks CD200 binding to both CD200R isoforms. Additionally, by blocking CD200/CD200R interaction, OX131 prevents inhibition by CD200 in a T cell activation assay, resulting in IL-2 release.

**Known Reactivity Species:**
Mouse

**Format:**
Purified No Carrier Protein

**Immunogen:**
Recombinant mouse CD200R extracellular domain fusion protein.

### Formulation
This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

**Purity**
≥90% monomer by analytical SEC

**Storage and Stability**
This antibody may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

**Product Preparation**
Purified antibodies are manufactured in an animal free facility using only *in vitro* protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

**Applications**
**Applications and Recommended Usage (Quality Tested By Leinco):**

**Functional Bioassays (Agonist/Blocking),**
**FC**

**Other Applications Reported in Literature:**

**IHC**

**Country of Origin**
USA

**References**
1 Akkaya M, Aknin ML, Akkaya B, et al. PLoS One. 8(5):e63325. 2013.
2 Nip C, Wang L, Liu C. Biomedicines. 11(12):3326. 2023.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.
410 Axminister Dr, St. Louis, MO 63026 (800) 538-1145 leincoglobal@leinco.com