# Data Sheet (Cat.No.TMPY-01071)

TargetMol

## CD200 Protein, Human, Recombinant (His)

### General Information

| | |
|---|---|
| Synonyms: | Cd200 molecule;MOX2;OX2;OX-2;MOX1;MRC |
| Protein Construction: | Gln31-Gly232 |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | P41217-1 |
| Molecular Weight: | 23.5 kDa (predicted); 40-60 kDa (reducing condition, due to glycosylation) |

### QC Testing

| | |
|---|---|
| Biological Activity: | Immobilized Human CD200, His Tag at 1 μg/ml (100 μl/Well) on the plate. Dose response curve for Human CD200 R1, hFc Tag with the EC50 2.4 ng/ml determined by ELISA. |
| Purity: | ≥ 98 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC. |
| Endotoxin: | < 1.0 EU/μg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization. |

### Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CD200 (OX-2) is a cell surface glycoprotein that imparts immune privileges by suppressing alloimmune and autoimmune responses through its receptor, CD200R, expressed primarily on myeloid cells. Signals delivered through the CD200:CD200R axis have been shown to play an important role in the regulation of anti-tumor immunity, and overexpression of CD200 has been reported in a number of malignancies, including CLL, as well as on cancer stem cells. The role of CD200-CD200R signaling in immune regulation of the central nervous system has

become a popular field of research in recent years. Many studies have shown that there is a close correlation between CD200-CD200R, microglia activation, and Parkinson's disease (PD). The ability of CD200 to suppress myeloid cell activation is critical for maintaining normal tissue homeostasis but may also enhance the survival of migratory neoplastic cells. CD200 and CD200R associate via their respective N-terminal Ig-like domains. CD200 has been characterized as an important immunoregulatory molecule, increased expression of which can lead to decreased transplant rejection, autoimmunity, and allergic disease. Elevated CD200 expression has been reported to be associated with poor prognosis in some human malignancies. Besides, CD200 also plays an important role in prevention of graft rejection, autoimmune diseases and spontaneous abortion.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

Minas K,et al.(2006) Is the CD200/CD200 receptor interaction more than just a myeloid cell inhibitory signal? Crit Rev Immunol. 26(3): 213-30.

Wang XJ,et al.(2007) CD200-CD200R regulation of microglia activation in the pathogenesis of Parkinson's disease. J Neuroimmune Pharmacol. 2(3): 259-64.

Wong KK,et al.(2010) The role of CD200 in immunity to B cell lymphoma. J Leukoc Biol. 88(2): 361-72.



Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481