Rhesus CD200 Protein (Fc Tag)

Catalog Number: **90230-C02H**

General Information

Gene Name Synonym:

CD200

Protein Construction:

A DNA sequence encoding the rhesus CD200 (NP_001244473.1) (Met1-Gly232) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rhesus

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Immobilized human CD200R1-His (Cat:11218-H08H) at 10 μg/ml (100 μl/well) can bind Rhesus CD200-Fc, The EC_{50} of Rhesus CD200-Fc is 10.1-23.6 ng/ml.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Gln 31

Molecular Mass:

The recombinant rhesus CD200 comprises 443 amino acids and has a calculated molecular mass of 49.6 KDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

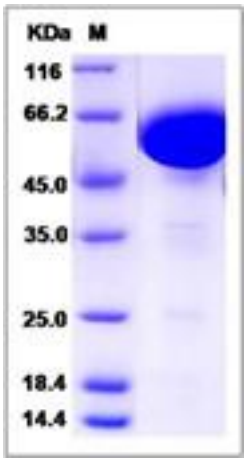
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 a number of human malignancies. In addition, CD200 also plays an important role in prevention of graft rejection, autoimmune diseases and spontaneous abortion.

References

1.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. 2.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. 3.Wong KK, *et al.* (2010) The role of CD200 in immunity to B cell lymphoma. J Leukoc Biol. 88(2): 361-72.