General Information

Gene Name Synonym:
MOX1; MOX2; MRC; OX-2; OX2

Protein Construction:
A DNA sequence encoding the human CD200 (NP_005935.4) (Met1-Gly232) was expressed with a c-terminal Fc region of human IgG1 tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.

Source: Human
Expression Host: Human Cells

QC Testing

Biotin/Protein Ratio:
0.7-1 as determined by the HABA assay.

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin:
< 1.0 EU per µg protein as determined by the LAL method.

Predicted N terminal: Gln 31

Molecular Mass:
The recombinant human CD200 consists of 455 amino acids and predicts a molecular mass of 51 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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20°C to -80°C. Store it under sterile conditions at -20°C to -80°C 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

CD2 (OX-2) is a cell surface glycoprotein that imparts immune privileges by suppressing alloimmune and autoimmune responses through its receptor, CD2R, expressed primarily on myeloid cells. Signals delivered through the CD2:CD2R axis have been shown to play an important role in the regulation of anti-tumor immunity, and overexpression of CD2 has been reported in a number of malignancies, including CLL, as well as on cancer stem cells. The role of CD2-CD2R 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 CD2-CD2R, microglia activation, and Parkinson's disease (PD). The ability of CD2 to suppress myeloid cell activation is critical for maintaining normal tissue homeostasis but may also enhance the survival of migratory neoplastic cells. CD2 and CD2R associate via their respective N-terminal Ig-like domains. CD2 has been characterized as an important immunoregulatory molecule, increased expression of which can lead to decreased transplant rejection, autoimmunity, and allergic disease. Elevated CD2 expression has been reported to be associated with poor prognosis in a number of human malignancies. In addition, CD2 also plays an important role in prevention of graft rejection, autoimmune diseases and spontaneous abortion.

References