## Human CD200, C-His Tag (ECD) Protein

## **HA210665**



Product name: Human CD200, C-His Tag (ECD)

Species reactivity: Human

**Bio-Activity:** Testing in progress.

**Protein construction** 

description:

A DNA sequence encoding the human CD200 protein (P41217) (Gln 33-Gly 232) was expressed with a His tag

at the C-terminus.

Background: CD200, also known as OX-2, is a 45 kDa transmembrane immunoregulatory protein that belongs to the

immunoglobulin superfamily. The human CD200 cDNA encodes a 278 amino acid (aa) precursor that includes a 30 aa signal sequence, a 202 aa extracellular domain (ECD), a 27 aa transmembrane segment, and a 19 aa cytoplasmic domain. The ECD is composed of one Ig-like V-type domain and one Ig-like C2-type domain. A splice variant of CD200 has been described and has a truncated cytoplasmic tail. Within the ECD, human CD200 shares 76% aa sequence identity with mouse and rat CD200. CD200 is widely but not ubiquitously expressed. Its receptor (CD200R) is restricted primarily to mast cells, basophils, macrophages, and dendritic cells, which suggests myeloid cell regulation as the major function of CD200. CD200 knockout mice are characterized by increased macrophage number and activation and are predisposed to autoimmune disorders. CD200 and CD200R associate via their respective N-terminal Ig-like domains. In myeloid cells, CD200R initiates inhibitory signals following receptor-ligand contact. In T cells, however, CD200 functions as a costimulatory molecule independent of the CD28 pathway. Several additional CD200R-like molecules have been identified in human and mouse, but their capacity to interact with CD200 is controversial. Several viruses encode CD200 homologs which are expressed on infected cells during the lytic phase. Like CD200 itself, viral

CD200 homologs also suppress myeloid cell activity, enabling increased viral propagation.

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

Endotoxin: Less than 1.0 EU per µg by the LAL method.

Fragment region: CD200 (31-232)

Source: HEK293

Accession: P41217

Predicted molecular mass: 23.8 kD

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.

Reconstitute at 250 µg/ml in sterile water.

Storage: Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -

 $20^{\circ}$ C to  $-80^{\circ}$ C It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn



## **Images**

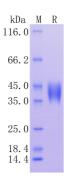


Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".