

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived human C1qR1/CD93 protein
Val258-Lys580 with a C-terminal 6-His tag
Accession # Q9NYP3.3

N-terminal Sequence Analysis Val258

Predicted Molecular Mass 34 kDa

SPECIFICATIONS

SDS-PAGE 65-80 kDa, under reducing conditions.

Activity Measured by its binding ability in a functional ELISA.
Recombinant Human C1qR1/CD93 His-tag binds to Recombinant Human IGFBP-rp1/IGFBP-7 (K95R) Protein (Catalog # 1334-B7) with an ED₅₀ of 0.150-1.50 µg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 250 µg/mL in sterile water.

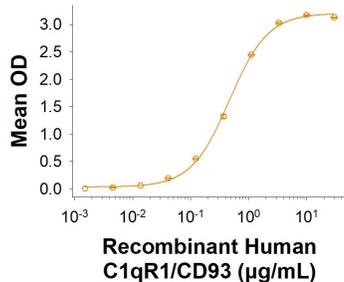
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

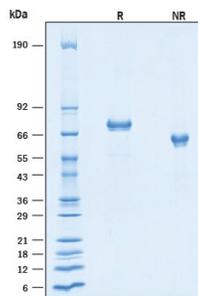
DATA

Binding Activity



Recombinant Human C1qR1/CD93 His-tag Protein Binding Activity. Measured by its binding ability in a functional ELISA. Recombinant Human C1qR1/CD93 His-tag Protein binds to Recombinant Human IGFBP-rp1/IGFBP-7 (K95R) Protein (Catalog # 1334-B7) with an ED₅₀ of 0.150-1.50 µg/mL.

SDS-PAGE



Recombinant Human C1qR1/CD93 His-tag Protein SDS-PAGE. 2 µg/lane of Recombinant Human C1qR1/CD93 His-tag Protein (Catalog # 11587-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 65-80 kDa, under reducing conditions.

BACKGROUND

C1qR1, also known as CD93 and C1qRp, is an approximately 125 kDa type-1 transmembrane glycoprotein that is involved in various aspects of inflammatory reactions (1). Mature human CD93 consists of a 557 amino acid (aa) extracellular domain (ECD) containing C-type lectin and EGF-like domains, followed by a 21 aa transmembrane segment and a 51 aa cytoplasmic domain (2, 3). Within the ECD, human CD93 shares 65% aa sequence identity with mouse and rat CD93. CD93 is expressed by vascular endothelial cells (5) and by a variety of hematopoietic cells (3-9). Various sized fragments of soluble CD93 (50-75 kDa) can be shed from monocytes, neutrophils, and vascular endothelial cells following inflammatory stimulation, leaving a residual stub in the membrane (11-13). Cross-linking of cell surface CD93 enhances phagocytosis by monocytes and enhances the uptake of apoptotic cells *in vivo* (10, 15). Soluble CD93 promotes the differentiation of monocytes to macrophages, phagocytosis of apoptotic cells, and inflammatory responsiveness to multiple TLR ligands (12, 14). CD93 plays a role in cardiovascular disease progression and modulates angiogenesis, inflammation and tumor growth and its interaction with insulin-like growth factor binding protein 7 (IGFBP7) contributes to abnormal tumor vasculature (16-17).

References:

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