

Active Recombinant Human VSIR protein, His-Avi-tagged, Biotinylated

Cat. No. VSIR-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human VSIR(Phe33-Ala194) protein, fused to His/Avi tag at the C-terminus, was expressed in HEK293 cells .
Species	Human
Source	HEK293
ProteinLength	Phe33-Ala194
Description	Platelet receptor Gi24, also known as Dies1, VISTA, SISP1 and B7-H5, is a 55-65 kDa transmembrane glycoprotein with homology to B7-like immune costimulatory molecules (1, 2). Mature human Gi24 contains a 162 amino acid (aa) extracellular domain (ECD) with one V-type Ig-like domain, a 21 aa transmembrane segment, and a 96 aa cytoplasmic domain. Within the ECD, human Gi24 shares 70% and 67% aa sequence identity with mouse and rat Gi24, respectively (3). The 30 kDa ECD can be shed by MT1-MMP, with a 25-30 kDa fragment remaining in the membrane (3). Gi24 promotes both MT1-MMP expression and the MT1-MMP mediated activation of MMP-2 (3). Gi24 supports the differentiation of embryonic stem cells (ESC) and enhances BMP-4 induced signaling in ESC, but is also down-regulated following BMP-4 exposure (4, 5). It binds to BMP-4 directly, and also associates with the type I BMP receptor Activin RIB/ALK-4 (4, 5). Gi24 is expressed on the surface of naïve CD4+ T cells, regulatory T cells, and adipocytes (6, 7). It is up-regulated in vivo on activated monocytes and dendritic cells (5). Gi24 inhibits CD4+ and CD8+ T cell proliferation,

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and their production of IL-2 and IFN- γ (6). Its expression on tumor cells attenuates the anti-tumor immune response and enables more rapid tumor progression (6). In contrast, Gi24 limits disease progression in the autoimmune disease model EAE (6). Gi24 also acts as a co-inhibitory receptor on alloreactive T cells to regulate T cell tolerance (8).

Predicted N Terminal	Phe33
Form	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When serially diluted Biotinylated Recombinant Human VISTA His-tag Avi-tag Protein is immobilized onto a Streptavidin coated plate, it binds to Recombinant Human VSIG-3 Fc Chimera with an ED50 of 75-450 ng/ml.
Molecular Mass	35-50 kDa, under reducing conditions
Endotoxin	<1.0 EU per 1 μ g of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
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.
Reconstitution	Reconstitute at 200 μ g/mL in PBS.

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Conjugation Biotin

GENE INFORMATION

Gene Name VSIR V-set immunoregulatory receptor [Homo sapiens]

Official Symbol VSIR

Synonyms B7H5; GI24; B7-H5; PD-1H; SISP1; VISTA; PP2135; C10orf54; DD1alpha; V-domain Ig suppressor of T cell activation; V-set domain-containing immunoregulatory receptor; platelet receptor GI24; sisp-1

Gene ID 64115

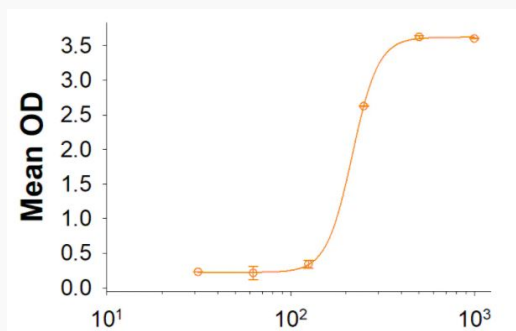
mRNA Refseq NM_022153

Protein Refseq NP_071436

MIM 615608

UniProt ID Q9H7M9

Binding Activity

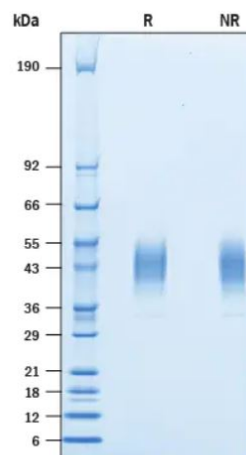


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SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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