

VSIG4 Protein, Mouse (168a.a, HEK293, His)

Cat. No.:	HY-P71006
Synonyms:	Vsig4; V-set and immunoglobulin domain containing 4;
Species:	Mouse
Source:	HEK293
Accession:	F6TUL9 (H20-P187)
Gene ID:	278180
Molecular Weight:	28-35 kDa

PROPERTIES

AA Sequence	<pre> H P T L K T P E S V T G T W K G D V K I Q C I Y D P L R G Y R Q V L V K W L V R H G S D S V T I F L R D S T G D H I Q Q A K Y R G R L K V S H K V P G D V S L Q I N T L Q M D D R N H Y T C E V T W Q T P D G N Q V I R D K I I E L R V R K Y N P P R I N T E A P T T L H S S L E A T T I M S S T S D L T T N G T G K L E E T I A G S G R N L P </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>V-set and immunoglobulin domain containing 4 (Vsig4) is a membrane protein belonging to complement receptor of the immunoglobulin superfamily. Vsig4 is structurally related to the B7 family of immune regulatory proteins. Vsig4 may be a negative regulator of T-cell responses, interleukin-2 production and a receptor for the complement component 3 fragments C3b and iC3b. By binding C3b, VSIG4 mediates clearance of C3b opsonized pathogens, such as <i>Listeria monocytogenes</i> and <i>Staphylococcus aureus</i>.</p> <p>The expression of VSIG4 is restricted to tissue macrophages, including peritoneal macrophages and liverresidential Kupffer cells. Moreover, VSIG4 marks a subset of macrophages that associates with diabetes resistance.</p>
------------	---

VSIG4 antagonizes activation signals in macrophages by stimulating PI3K/Akt-STAT3 cascades, augmenting expression of pyruvate dehydrogenase kinase-2 (PDK2), and inhibiting pyruvate dehydrogenase (PDH) activity via phosphorylation. Therefore, VSIG4 restricts pyruvate metabolism in the mitochondria during oxidative phosphorylation, resulting in suppression of mtROS secretion and M1 differentiation^{[1][2]}.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA