

SIRP alpha/CD172a Protein, Human (HEK293, Fc)

Cat. No.:	HY-P7406
Synonyms:	rHuSignal regulatory protein α , Fc Chimera; CD172a; SHPS-1; BIT; MYD1
Species:	Human
Source:	HEK293
Accession:	P78324 (E31-R370)
Gene ID:	140885
Molecular Weight:	85-100 kDa

PROPERTIES

AA Sequence	<pre> E E E L Q V I Q P D K S V L V A A G E T A T L R C T A T S L I P V G P I Q W F R G A G P G R E L I Y N Q K E G H F P R V T T V S D L T K R N N M D F S I R I G N I T P A D A G T Y Y C V K F R K G S P D D V E F K S G A G T E L S V R A K P S A P V V S G P A A R A T P Q H T V S F T C E S H G F S P R D I T L K W F K N G N E L S D F Q T N V D P V G E S V S Y S I H S T A K V V L T R E D V H S Q V I C E V A H V T L Q G D P L R G T A N L S E T I R V P P T L E V T Q Q P V R A E N Q V N V T C Q V R K F Y P Q R L Q L T W L E N G N V S R T E T A S T V T E N K D G T Y N W M S W L L V N V S A H R D D V K L T C Q V E H D G Q P A V S K S H D L K V S A H P K E Q G S N T A A E N T G S N E R </pre>
Biological Activity	Immobilized CD47, His, Human at 2.0 $\mu\text{g}/\text{mL}$ (100 $\mu\text{l}/\text{well}$), can bind SIRP α , hFc, Human with a linear range of 0.25-185.0 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS or PBS, 5% trehalose and mannitol.
Endotoxin Level	<1 EU/ μg , determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ 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

Signal regulatory protein α (SIRP α) is a glycoprotein receptor that recruits and signals via the tyrosine phosphatases SHP-1 and SHP-2. The cytoplasmic domain of SIRP α contains four immunoreceptor tyrosine-based inhibition motifs (ITIMs), which upon phosphorylation recruit and activate SH2-domain-containing phosphotyrosine phosphatases (PTPase) SHP-1 and SHP-2. In macrophages SIRP α can negatively regulate the phagocytosis of host cells and the production of tumor necrosis factor alpha. SIRP α ligation induces macrophage NO production through the cooperative action of JAK/STAT and PI3-K/Rac1/NOX/H₂O₂ signaling pathways. It proposes that SIRP α may function as an inhibitory receptor^[1].

REFERENCES

[1]. Alblas J, et al. Signal regulatory protein alpha ligation induces macrophage nitric oxide production through JAK/STAT- and phosphatidylinositol 3-kinase/Rac1/NAPDH oxidase/H₂O₂-dependent pathways. Mol Cell Biol. 2005 Aug;25(16):7181-92.

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