

SIRP alpha/CD172a Protein, Human (HEK293, His-Myc)

Cat. No.:	HY-P7405
Synonyms:	rHuSignal regulatory protein α , His; CD172a; SHPS-1; BIT; MYD1
Species:	Human
Source:	HEK293
Accession:	P78324 (E31-R370)
Gene ID:	140885
Molecular Weight:	41.8 kDa

PROPERTIES

AA Sequence	<div> <div> E E E L Q V I Q P D G A G P G R E L I Y I T P A D A G T Y Y P V V S G P A A R A L S D F Q T N V D P A H V T L Q G D P L V T C Q V R K F Y P N W M S W L L V N V A H P K E Q G S N T </div> <div> K S V L V A A G E T N Q K E G H F P R V C V K F R K G S P D T P Q H T V S F T C V G E S V S Y S I H R G T A N L S E T I Q R L Q L T W L E N S A H R D D V K L T A A E N T G S N E R </div> <div> A T L R C T A T S L T T V S D L T K R N D V E F K S G A G T E S H G F S P R D I S T A K V V L T R E R V P P T L E V T Q G N V S R T E T A S C Q V E H D G Q P A </div> <div> I P V G P I Q W F R N M D F S I R I G N E L S V R A K P S A T L K W F K N G N E D V H S Q V I C E V Q P V R A E N Q V N T V T E N K D G T Y V S K S H D L K V S </div> </div>
Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 μ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
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
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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.

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