ADIPOR1 Protein, Human (Cell-Free)

Cat. No.:	HY-P702199
Synonyms:	Adiponectin receptor protein 1; Progestin and adipoQ receptor family member 1; Progestin and adipoQ receptor family member I
Species:	Human
Source:	E. coli Cell-free
Accession:	Q96A54 (E89-L375)
Gene ID:	51094
Molecular Weight:	33.0 kDa

PROPERTIES

AA Sequence	E G R W R V I P Y D V L P D W L K D N D Y L L H G H R P P M P S F R A C F K S I F R I H T E T G N I W T H L L G F V L F L F L G I L T M L R P N M Y F M A P L Q E K V V F G M F F L G A V L C L S F S W L F H T V Y C H S E K V S R T F S K L D Y S G I A L L I M G S F V P W L Y Y S F Y C S P Q P R L I Y L S I V C V L G I S A I I V A Q W D R F A T P K H R Q T R A G V F L G L G L S G V V P T M H F T I A E G F V K A T T V G Q M G W F F L M A V M Y I T G A G L Y A A R I P E R F F P G K F D I W F Q S H Q I F H V L V V A A A F V H F Y G V S N L Q E F R Y G L E G G C T D D T L L
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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	The ADIPOR1 Protein acts as a receptor for adiponectin (ADIPOQ), a vital hormone secreted by adipocytes that plays a crucial role in regulating glucose and lipid metabolism. Its functions are integral to maintaining normal glucose and fat homeostasis, as well as a healthy body weight. Upon binding to ADIPOQ, ADIPOR1 activates a signaling cascade that leads

	to increased AMP-activated protein kinase (AMPK) activity, resulting in enhanced fatty acid oxidation, elevated glucose uptake, and decreased gluconeogenesis. ADIPOR1 exhibits high affinity for globular adiponectin and lower affinity for full-length adiponectin. It may form homooligomers and heterooligomers with ADIPOR2. The interaction with APPL2 negatively regulates adiponectin signaling, while the interaction with APPL1 is enhanced by ADIPOQ, facilitating the recruitment of APPL1 to ADIPOR1 and positively regulating adiponectin signaling.

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