

APOD Protein, Human (HEK293, C-His)

Cat. No.:	HY-P7530A
Synonyms:	rHuApolipoprotein D, His; ApoD; Apolipoprotein D
Species:	Human
Source:	HEK293
Accession:	P05090 (Q21-S189)
Gene ID:	347
Molecular Weight:	25-40 kDa

PROPERTIES

AA Sequence	<p>Q A F H L G K C P N P P V Q E N F D V N K Y L G R W Y E I E K I P T T F E N G R</p> <p>C I Q A N Y S L M E N G K I K V L N Q E L R A D G T V N Q I E G E A T P V N L T</p> <p>E P A K L E V K F S W F M P S A P Y W I L A T D Y E N Y A L V Y S C T C I I Q L</p> <p>F H V D F A W I L A R N P N L P P E T V D S L K N I L T S N N I D V K K M T V T</p> <p>D Q V N C P K L S</p>
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, 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>The IL-1RA/IL-1RN Protein operates as a potent anti-inflammatory antagonist within the interleukin-1 family, specifically targeting proinflammatory cytokines such as interleukin-1beta/IL1B and interleukin-1alpha/IL1A. This protein serves as a crucial safeguard against immune dysregulation and uncontrolled systemic inflammation triggered by IL1, responding to various innate stimulatory agents, including pathogens. Its ability to modulate the inflammatory response highlights its significance in potential therapeutic interventions aimed at managing inflammatory disorders and maintaining immune</p>
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balance. Shifting focus to the Alpha 1-Microglobulin Protein, it emerges as a multifunctional antioxidant and tissue repair agent, exhibiting reductase, heme-binding, and radical-scavenging activities. Operating in both intravascular and extravascular spaces, this protein plays a pivotal role in red cell homeostasis, protecting against heme-induced cell damage and mitigating oxidative stress. Its diverse functions span from preventing hemolysis in red blood cells to reducing extracellular methemoglobin and inhibiting oxidation of low-density lipoprotein particles during acute inflammation. Moreover, Alpha 1-Microglobulin safeguards against oxidation products in the extracellular matrix and cell membranes, contributing to cellular and extracellular matrix integrity. Within the intracellular milieu, it maintains mitochondrial redox homeostasis, offering protection against heme-induced oxidative damage and facilitating correct protein folding in the endoplasmic reticulum. Additionally, this protein exhibits antiprotease activity, inhibiting key proteases involved in inflammatory and cytotoxic responses, and plays a crucial role in extracellular matrix remodeling and cell adhesion.

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

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