

Recombinant Human Alpha-2-glycoprotein 1, Zinc-binding

Cat. No. AZGP1-238H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human ZA2G produced in HEK cells is a single, glycosylated polypeptide chain. The protein contains a total of 290 amino acids. Recombinant Human ZA2G is identical to Swiss-Prot-P25311 (AA 18-295, mature Zinc-Alpha-2-Glycoprotein). Twelve extra amino acids were fused with the N-terminus (bold).

Species Human

Source HEK293

Description

Zinc-alpha-2-glycoprotein (ZAG) is found in body fluids such as serum, sweat, and seminal and breast cyst fluids. It is identical in amino acid sequence to tumor-derived lipid mobilizing factor (LMF), a protein associated with the dramatic loss of adipose body stores in cancer cachexia, and has been shown to stimulate lipolysis by adipocytes in vivo and in vitro. ZAG exhibits a class I major histocompatibility complex (MHC) fold but is a soluble protein rather than being anchored to plasma membranes and does not associate with alpha-2-microglobulin in humans.

Sequences Of Amino Acids

ASWSHPQFEK GSQENQDGRY SLTYIYTGLS KHVEDVPAFQ ALGSLNDLQF
 FRYNSKDRKS QPMGLWRQVEGMEDWKQDSQ LQKAREDIFM ETLKDIVEYY
 NDSNGSHVLQ GRFGCEIENN RSSGAFWKYY YDGKDYIEFNKEIPAWVPFD
 PAAQITKQKW EAEPVYVQRA KAYLEEECPA TLRKYLKYSK NILDRQDPPS
 VVVTSHQAPG EKKKLKCLAYDFYPGKIDVH WTRAGEVQEP ELRGDVLHNG
 NGTYQSWVVV AVPPQDTAPY SCHVQHSSLA QPLVVPWEAS.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Filtered (0.4 μ m) and lyophilized in 0.5 mg/ml in 0.1M Tris-HCl pH 8.0 and 150mM NaCl.
Reconstitution	Add deionized water to a working concentration approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely.
Purity	Greater than 90.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Biological Activity	Differentiated human SGBS adipocytes were incubated for 18 h at two dose levels of rhZA2G - 5 and 20 μ g/ml. Lipolysis was quantified by measuring glycerol release into the medium using a standard protocol. Isoproterenol (10 μ M) and IBMX (100 μ M) were used as positive controls. "Con" stands for the negative control. There was a 3-fold increase in glycerol release with both doses. The increase was statistically significant at 5 μ g/ml dose of rhZA2G ($p < 0.01$) as well as in positive controls.
Stability	Upon reconstitution ZA2G should be stored at 4°C between 2-7 days and for future use below -18°C. Please avoid freeze-thaw cycles.
GENE INFORMATION	
Gene Name	AZGP1 alpha-2-glycoprotein 1, zinc-binding [Homo sapiens]
Synonyms	AZGP1; alpha-2-glycoprotein 1, zinc-binding; ZAG; ZA2G; alpha-2-glycoprotein 1, zinc; Zn-alpha2-glycoprotein; Alpha-2-glycoprotein, zinc; Zn-alpha-2-GP; NP_001176
Gene ID	563
mRNA Refseq	NM_001185

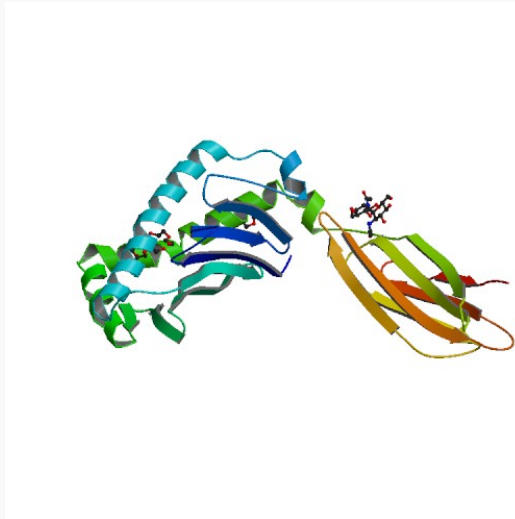
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Protein Refseq	NP_001176
MIM	194460
UniProt ID	P25311
Chromosome Location	7q22.1
Function	fatty acid binding; protein transmembrane transporter activity; ribonuclease activity

PDB rendering based on 1t7v.



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