



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human AHSG Protein
Catalog Number: hRP-1505
Manufacturer: LD Biopharma, Inc.

Introduction

Alpha2-HS glycoprotein (AHSG), a glycoprotein present in the serum, is synthesized by hepatocytes. The AHSG molecule consists of two polypeptide chains, which are both cleaved from a proprotein encoded from a single mRNA. It is involved in several functions, such as endocytosis, brain development and the formation of bone tissue. The protein is commonly present in the cortical plate of the immature cerebral cortex and bone marrow hemopoietic matrix, and it has therefore been postulated that it participates in the development of the tissues. However, its exact significance is still obscure. Recent data indicated that GSN is auto-antigen, which its specific antibody could be detected in Rheumatoid Arthritis patient's synovial fluid.

Full-length mature human AHSG (19-367 aa, derived from BC048198) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site Tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol: AHSG (A2HS; AHS; FETUA; HSGA)
Accession Number: NP_001613.2
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose, DTT .
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Sagarika Biswas, et al., *Identification of Novel Autoantigen in the Synovial Fluid Of*



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Rheumatoid Arthritis Patients Using an Immunoproteomics Approach. Plos ONE 8 e56246 (2013)

Thompson PD, et al., *Alpha-2 Heremans Schmid Glycoprotein (AHSG) modulates signaling pathways in head and neck squamous cell carcinoma cell line SQ20B. Exp. Cell Res. 321 (2), 123-132 (2014)*

Bakiner O, et al., *Plasma fetuin-A levels are reduced in patients with hypothyroidism. Eur. J. Endocrinol. 170 (3), 411-418 (2014)*

Dalamaga M, et al., *Higher fetuin-A, lower adiponectin and free leptin levels mediate effects of excess body weight on insulin resistance and risk for myelodysplastic syndrome. Metab. Clin. Exp. 62 (12), 1830-1839 (2013)*

Chatterjee P, et al., *Adipocyte fetuin-A contributes to macrophage migration into adipose tissue and polarization of macrophages. J. Biol. Chem. 288 (39), 28324-28330 (2013)*

Gagnon A, et al., *Serum fetuin-A levels following recombinant human thyroid-stimulating hormone stimulation. Clin Invest Med 36 (5), E264-E268 (2013)*

Applications

1. May be used for in vitro AHSG mediated cell differentiation / activation regulation study with this protein either as soluble factor or as coating matrix protein.
2. May be used for mapping AHSG protein-protein interaction.
3. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker protein for early diagnosis of Rheumatoid Arthritis, Hypothyroidism et al.
5. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.



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Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGGEFAPHGPGLIYRQPNCDDPETEEAALVAIDYINQNL
WGYKHTLNQIDEVKVWPQQPSGELFEIEIDTLETTCHVLDPTPVARCSVRQLKEHAVEGDCDFQ
LLKLDGKFSVVYAKCDSSPDSAEDVRKVCQDCPLLAPLNDTRVVHAAKAALAAFNAQNNGSNFQ
LEEISRAQLVPLPPSTYVEFTVSGTDCVAKEATEAAKCNLLAEKQYGFCKATLSEKLGGAEVAV
TCTVFQTQPVTSQPQPEGANEAVPTPVVDPDAPPSPPLGAPGLPPAGSPDPSHVLLAAPPQHQL
HRAHYDLRHTFMGVVSLGSPSGEVSHPRKTRTVVQPSVGAAAGPVVPPCPGRIRHFKV