32-20242: Recombinant Human Vaspin(Discontinued)

Alternative Name : Visceral adipose tissue-derived serpin

Description

Source:E.coli

Vaspin is a newly described adipocytokine expressed predominantly in visceral white adipose tissues. Structure analysis of vaspin predicts the presence of three Beta-sheets, nine Alpha-helices, and one central loop, which are distinctive structural features of Serpin family members. The serpins are irreversible (Â"suicidalÂ") serine-protease inhibitors, characterized by having more than 30% sequence homology with Alpha1-antitrypsin and a conserved tertiary structure, which contains an exposed reactive center loop that acts as a pseudo-substrate for the target proteinase. Members of this family play an important role in a number of fundamental biological processes, including blood coagulation, fibrinolysis, complement activation, angiogenesis, inflammation, and tumor suppression. In humans, the serpins represent approximately 2% of total serum proteins, of which 70% is Alpha1-antitrypsin. Vaspin exhibits 40.2% sequence identity with Alpha1-antitrypsin. Yet, its protease inhibitory activity is still unknown. Vaspin mRNA expression in visceral fat is positively correlated with BMI and percent of body fat. Administration of vaspin to obese mice improved glucose tolerance and insulin sensitivity, reflected by normalized blood glucose levels. It also led to the reversal of altered expression of diabetes-relevant adipocytokines, including leptin, adiponectin, resistin, and TNF-Alpha. These findings suggest a potential clinical use for Vaspin in ameliorating certain aberrations seen in the diabetic/obesity metabolic syndrome. Recombinant Human Vaspin is a 45.2 kDa protein containing 395 amino acid residues.

Product Info

Amount : 5 µg / 25 µg

Purification : Purity: >= 98% by SDS-PAGE gel and HPLC analyses.

Amino Acid : MLKPSFSPRN YKALSEVQGW KQRMAAKELA RQNMDLGFKL LKKLAFYNPG RNIFLSPLSI STAFSMLCLG AQDSTLDEIK QGFNFRKMPE KDLHEGFHYI IHELTQKTQD LKLSIGNTLF IDQRLQPQRK FLEDAKNFYS AETILTNFQN LEMAQKQIND FISQKTHGKI NNLIENIDPG TVMLLANYIF FRARWKHEFD PNVTKEEDFF LEKNSSVKVP MMFRSGIYQV GYDDKLSCTI LEIPYQKNIT AIFILPDEGK LKHLEKGLQV DTFSRWKTLL SRRVVDVSVP RLHMTGTFDL KKTLSYIGVS KIFEEHGDLT KIAPHRSLKV GEAVHKAELK MDERGTEGAA GTGAQTLPME TPLVVKIDKP YLLLIYSEKI PSVLFLGKIV NPIGK

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