

## DATASHEET

Version 20181206

# Vaspin, Human

**Cat. No.:** Z03199-10

**Size:** 10.0 ug

**Synonyms:** Serpin A12, OL-64, Visceral adipose tissue-derived serine protease inhibitor

### Description:

Vaspin is a cytokine originally identified in visceral adipose tissue of Otsuka Long-Evans Tokushima fatty rats, and the name "Vaspin" is short for visceral adipose tissue-derived serine protease inhibitor. Besides the visceral adipose, Vaspin is also expressed in the skin, hypothalamus, pancreatic islets and stomach, and is shown to exert an anti-inflammatory role by inhibiting several proinflammatory adipokines such as leptin, resistin, and Tumor Necrosis Factor- $\alpha$ . Vaspin also stimulates adiponectin expression and improves insulin sensitivity in mice. Vaspin expression has been shown to decrease with worsening of diabetes and body weight loss. Accordingly, administration of recombinant human Vaspin improved glucose tolerance in diet regulated mice suggesting it as a potential target for obese-related diseases. Recombinant human Vaspin (rhVaspin) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 394 amino acids. rhVaspin has a molecular mass of 45.1kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

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00001 LKPSFSPRNY KALSEVQGWK QRMAAKELAR QNMDLGFKLL
00041 KKLAIFYNPGR NIFLSPLSIS TAFSMLCLGA QDSTLDEIKQ
00081 GFNFRKMPEK DLHEGFHYII HELTQKTQDL KLSIGNTLFI
00121 DQRLQPQRKF LEDAKNFYSA ETILTNTFQNL EMAQKQINDF
00161 ISQKTHGKIN NLIENIDPGT VMLLANYIFF RARWKHEFDP
00201 NVTKEEDFFL EKNSSVKVPM MFRSGIYQVG YDDKLSCTIL
00241 EIPYQKNITA IFILPDEGL KHLEKGLQVD TFSRWKTLIS
00281 RRVVDVSVPR LHMTGTFDLK KTLSTYIGVSK IFEEHGDLTG
00321 IAPHRSLKVG EAVHKAELKM DERGTEGAAG TGAQTLPMET
00361 PLVVKIDKPY LLLIYSEKIP SVLFLGKIVN PIGK
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**Source:** *E. coli*

**Species:** Human

**Biological Activity:** Bioassay data are not available.

**Molecular Weight:** 45.1 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100  $\mu$ g/mL.

**Purity:** > 95% by SDS-PAGE and HPLC analyses.

**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant human Vaspin (rhVaspin) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhVaspin remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.