

Cytokines

Human Recombinant Serpin A12

Serpin A12, His tag



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Catalog #100-1326

100 µg

Product Description

Serpin A12, commonly known as vaspin, is a glycoprotein belonging to the serine protease inhibitor family (serpin). Serpins share a highly conserved core structure with multiple α -helices, β -strands, and a reactive site loop (RCL) to interact with the target protease (Huntington). Serpin A12 contains a His-residue tag at the carboxyl end of the polypeptide chain. It is an adipokine expressed predominantly in visceral adipose tissue and at significantly higher amounts in obese individuals (Kurowska et al.). It is thought to perform insulin-sensitizing functions, such as the regulation of kallikrein 7 (KLK7), an insulin-inhibiting protease (Heiker et al.). Serpin A12 is mainly associated with obesity, insulin resistance, and glucose metabolism but may also protect against high fat-induced bone loss (Wang et al.).

Product Information

Alternative Names: OL-64, Vaspin

Accession Number: NP_776249.1 (Leu21-Lys414) was expressed with a polyhistidine tag at the C-terminus.

Amino Acid Sequence: LKPSFSPRNY KALSEVQGWK QRMAAKELAR QNMDLGFKLL KKLAFYNPGR NIFLSPLSIS TAFSMLCLGA QDSTLDEIKQ GFNFRKMPEK DLHEGFHYII HELTQKTQDL KLSIGNTLFI DQRLQPQRKF LEDAKNFYSA ETILTINFQNL EMAQKQINDF ISQKTHGKIN NLIENIDPGT VMLLANYIFF RARWKHEFDP NVTKEEDFFL EKNSSVKVPM MFRSGIQVG YDDKLSTIL EIPYQKNITA IFILPDEGKL KHLEKGLQVD TFSRWKTLIS RRVVDVSVPR LHMTGTFDLK KTLSYIGVSK IFEHGD LTK IAPHRSLKVG EAVHKAELKM DERGTEGAAG TGAQTLPMET PLVVKIDKPY LLLIYSEKIP SVLFLGKIVN PIGKAHHHHH HHHHH

Predicted Molecular Mass: 46.5 kDa

Species: Human

Formulation: Lyophilized from sterile PBS, pH 7.4. Trehalose (5%), mannitol (5%), and 0.01% TWEEN® 80 are normally added as protectants before lyophilization.

Source: HEK293 cells

Specifications

Activity: Not available

Purity: $\geq 94\%$

Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

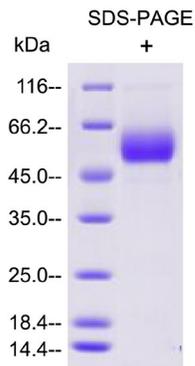
Preparation and Storage

Storage: Store at -20 to -80°C.

Stability: Stable as supplied for 12 months from date of receipt.

Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.25 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



Human Recombinant Serpin A12 was resolved with SDS-PAGE under reducing (+) conditions and visualized by Coomassie Blue staining. Human Recombinant Serpin A12 has a predicted molecular mass of 46.5 kDa and an apparent molecular mass of 50 - 55 kDa due to glycosylation.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines, or contact us at techsupport@stemcell.com.

References

- Heiker JT et al. (2013) Vaspin inhibits kallikrein 7 by serpin mechanism. *Cell Mol Life Sci* 70(14): 2569–83.
- Huntington JA. (2011) Serpin structure, function and dysfunction. *J Thromb Haemost* 9(1 S): 26–34.
- Kurowska P et al. (2021) Review: Vaspin (SERPINA12) expression and function in endocrine cells. *Cells* 10(7): 1710.
- Wang H et al. (2020) Vaspin antagonizes high fat-induced bone loss in rats and promotes osteoblastic differentiation in primary rat osteoblasts through Smad-Runx2 signaling pathway. *Nutr Metab (Lond)* 17(9).

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