Human ANXA5 / Annexin Ⅴ / Annexin A5 Protein, Biotinylated

Catalog Number: 10448-HNAE-B

General Information

Gene Name Synonym:

ANX5; ENX2; HEL-S-7; PP4; RPRGL3

Protein Construction:

A DNA sequence encoding the human ANXA5 (P08758) (Met1-Asp320) was expressed and purified. The purified protein was biotinylated in vitro.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met 1

Molecular Mass:

The recombinant human ANXA5 consists of 320 amino acids and predicts a molecular mass of 35.9 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

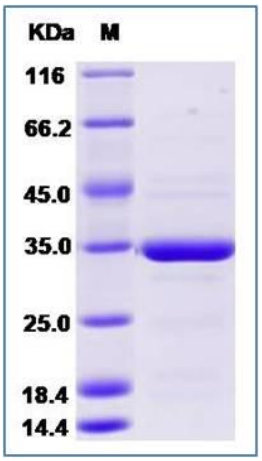
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The placental anticoagulant protein Annexin A5 (ANXA5) is a multifunctional protein that is highly expressed on the apical surfaces of syncytiotrophoblasts, and plays an important role in haemostatic regulations, maintaining blood fluidity of the placenta. Annexin A5 (ANXA5) is a protein abundantly expressed in normal placenta where it contributes to the healthy outcome of a pregnancy. Lower ANXA5 levels have been observed in M2/ANXA5 haplotype carrying chorion. The association found between the maternal carriage of the M2/ANXA5 haplotype and an elevated risk of IUGR and/or PE supports the hypothesis that carrier status of this haplotype and the consequently reduced placental ANXA5 expression might be responsible, at least partially, for the onset of these gestational vascular complications. ANXA5 could be used as a biomarker for the early detection of PE and for the prediction of its severity. ANXA5 as an embryonic anticoagulant that appears deficient in contiguous specter of thrombophilia-related pregnancy complications culminating more frequently in miscarriage in a maternal M2 carrier background. As a potential indicator for malignancy and lymphatic metastasis, ANXA5 overexpression increases in vitro migration and invasion of Hca-P cell, promotes in vivo malignancy, LNM rate and level of Hca-P-transplanted mice. Hereditary thrombophilias can impair vascular placental functions and predispose to the birth of small-for-gestational age (SGA) babies. The placental anticoagulant protein annexin A5 (ANXA5) may contribute to this process. A functional haplotype (M2) within the ANXA5 gene is associated with fetal loss and venous thrombosis.

References

1.Cederholm A, et al. (2007) Annexin A5 as a novel player in prevention of atherothrombosis in SLE and in the general population. Ann N Y Acad Sci. 1108: 96-103.
2.Schlaepfer DD, et al. (1992) Inhibition of Protein Kinase C by Annexin Ⅴ. Biochemistry. 31: 1886-91.
3.Vermes I, et al. (1995) A novel assay for apoptosis-flow cytometric detection of phosphatidylserine expression on early apoptotic cells using fluorescein labelled Annexin Ⅴ. J Immunol Methods. 184 (1): 39-51.