Human Epcr / PROCR Protein (His Tag)

Catalog Number: 13320-H08H

General Information

Gene Name Synonym:

CCCA; CCD41; EPCR

Protein Construction:

A DNA sequence encoding the extracellular domain of human PROCR (Q9UNN8) (Met 1-Thr 209), was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 97 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ser 18

Molecular Mass:

The secreted recombinant human PROCR consists of 203 amino acids and has a predicted molecular mass of 23.4 kDa. The apparent molecular mass of rhPROCR is approximately 37 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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

Storage:

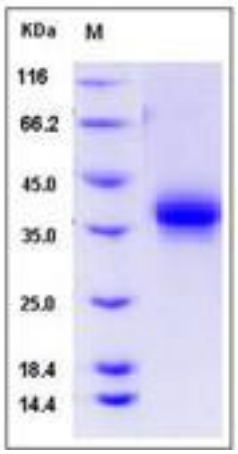
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Endothelial protein C receptor (EPCR), also known as activated protein C receptor (APC receptor) or PROCR, is a receptor for Protein C. Protein C plays an important role in many metabolism processes in humans and other animals after activated by binding to Endothelial protein C receptor (EPCR). Because of the EPCR is found primarily on endothelial cells (cells on the inside of blood vessels), activated protein C is found maily near endothelial cells. Protein C is pleiotropic, with two main functions: anticoagulation and cytoprotection. Which function will be performed depend on whether or not protein C remains bind to EPCR after activated. The anticoagulation occurs when it does not. In this case, protein C functions as an anticoagulant by irreversibly proteolytically inactivating Factor Va and Factor VIIIa, turning them into Factor Vi and Factor VIIIi respectively. When still bound to EPCR, activated protein C performs its cytoprotective effects, acting on the effector substrate PAR-1, protease-activated receptor-1. To a degree, APC's anticoagulant properties are independent of its cytoprotective ones, in that expression of one pathway is not affected by the existence of the other.

References

1.Nicolaes GA, *et al*. (2003). Congenital and acquired activated protein C resistance. Semin Vasc Med. 3 (1): 33-46. 2.Esmon CT. (2003). The protein C pathway. Chest 124 (3): 26-32. 3.Mosnier LO, *et al*. (2007)The cytoprotective protein C pathway. Blood. 109: 3161-72.