Cynomolgus Angiopoietin 1 / ANG1 / ANGPT1 Protein (Fc tag)

Catalog Number: **90025-C01H**

General Information

Gene Name Synonym:

ANGPT1

Protein Construction:

A DNA sequence encoding the cynomolgus ANGPT1 (XP_005563980.1) (Arg277-Phe498) was expressed with the Fc region of human IgG1 at the N-terminus.

Source: Cynomolgus

Expression Host: HEK293 Cells

QC Testing

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

Endotoxin:

< 1.0 EU per μg 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: Glu

Molecular Mass:

The recombinant cynomolgus ANGPT1 consists of 482 amino acids and predicts a molecular mass of 54.1 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

Storage:

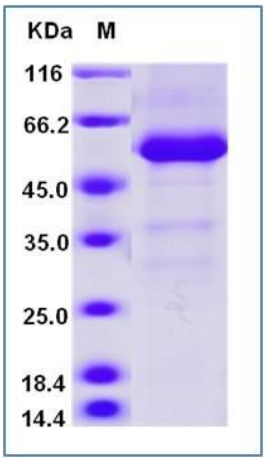
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The angiopoietin (ANGPT)-TIE2/TEK signaling pathway is essential for blood and lymphatic vascular homeostasis. ANGPT1 is a potent TIE2 activator, whereas ANGPT2 functions as a context-dependent agonist/antagonist. In disease, ANGPT2-mediated inhibition of TIE2 in blood vessels is linked to vascular leak, inflammation, and metastasis. Primary congenital glaucoma (PCG) is a leading cause of blindness in children worldwide and is caused by developmental defects in 2 aqueous humor outflow structures, Schlemm's canal (SC) and the trabecular meshwork. We previously identified loss-of-function mutations in the angiopoietin (ANGPT) receptor TEK in families with PCG and showed that ANGPT/TEK signaling is essential for SC development. A role for the major ANGPT ligands in the development of the aqueous outflow pathway. We determined that ANGPT1 is essential for SC development, and that Angpt1-knockout mice form a severely hypomorphic canal with elevated intraocular pressure. By linking ANGPT1 with PCG, these results highlight the importance of ANGPT/TEK signaling in glaucoma pathogenesis and identify a candidate target for therapeutic development.