

Human ENPP1-CHO-S Stable Cell Line

Catalog Number: C3044

SPECIFICATIONS

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Cell Line Name Human ENPP1-CHO-S stable cell line

Accession Number NP_006199.2

Host Cell Suspension CHO-S

 Quantity
 Two vials of frozen cells (5x10⁶ per vial)

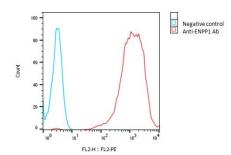
 Culture Medium
 CD-Opti-CHO with 20 μg/ml puromycin

Freezing Medium 90% FBS and 10% DMSO

Storage Liquid nitrogen

DATA

Detection of human ENPP1 expression on human ENPP1-CHO-S stable cells using a monoclonal antibody specific for human ENPP1 (Accurus #A1022)



BACKGROUND

Human ENPP1 (Ectonucleotide Pyrophosphatase/Phosphodiesterase 1) is a membrane-bound glycoprotein that belongs to the family of ectonucleotide pyrophosphatase/phosphodiesterase (ENPP) enzymes. ENPP1 is involved in a variety of physiological processes including bone mineralization, insulin signaling, and inflammation and is expressed in many tissues including bone, liver, adipose tissue, and cartilage. ENPP1 has both pyrophosphatase and phosphodiesterase activities and it plays a crucial role in regulating the levels of extracellular pyrophosphate, a mineralization inhibitor, in tissues such as bone and cartilage. It also serves as an inhibitor of insulin signaling, leading to insulin resistance in adipose tissue and skeletal muscle. In addition, ENPP1 has been implicated in various cellular processes such as cell adhesion, inflammation, and matrix calcification. ENPP1 has been found to be up regulated in various types of cancer, including breast, prostate, and colon cancer. Increased ENPP1 expression has been associated with cancer cell proliferation, migration, and invasion. This suggests that ENPP1 may play a role in cancer progression and metastasis. Given its link to a number of human diseases and cancers, there has been considerable interest in developing drugs that can modulate ENPP1 activity as a potential therapeutic strategy.

References

Roberts F, Zhu D, Farquharson C, Macrae VE. ENPP1 in the Regulation of Mineralization and Beyond. *Trends Biochem Sci.* **44(7)**:616-628. 2019. Bacci S, De Cosmo S, Prudente S, Trischitta V. ENPP1 gene, insulin resistance and related clinical outcomes. *Curr Opin Clin Nutr Metab Care.* **10(4)**:403-9. 2007.

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