

DESCRIPTION

Cell Line Name	Human ENPP1-CHO-S
Catalog Number	C3044
Gene Sequence	NP_006199.2
Host Cell	Suspension CHO-S
Quantity	Two vials of frozen cells (5x10 ⁶ per vial)
Culture Medium	CD-Opti-CHO with 20 µg/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

BACKGROUND

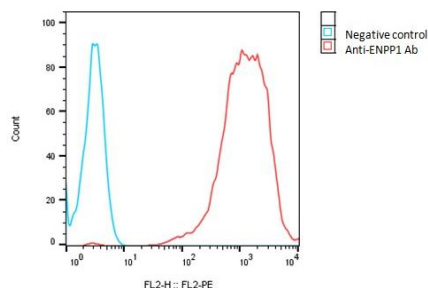
Human ENPP1 (Ectonucleotide Pyrophosphatase/Phosphodiesterase 1) is a membrane-bound glycoprotein that belongs to the family of ectonucleotide pyrophosphatase/phosphodiesterase (ENPP) enzymes. ENPP1 is involved in a variety of physiological processes including bone mineralization, insulin signaling, 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.

THAWING AND CULTURING

- Remove the cell vial from liquid nitrogen tank and thaw cells quickly in a 37°C water bath
- Transfer the cells to a 15 ml centrifuge tube and slowly add 5 ml of pre-warmed complete growth medium
- Centrifuge the cells at 200x g for 5 min
- Remove the supernatant
- Resuspend cell pellet with 7 ml of complete growth medium and transfer cells to a T25 flask
- Incubate cells in an incubator with 5% CO₂ at 37°C
- Split the cells twice a week or as needed.

DATA

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



REFERENCES

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- Li J, Duran MA, Dhanota N, Chatila WK, Bettigole SE, Kwon J, Sriram RK, Humphries MP, Salto-Tellez M, James JA, Hanna MG, Melms JC, Vallabhaneni S, Litchfield K, Usaite I, Biswas D, Bareja R, Li HW, Martin ML, Dorsaint P, Cavallo JA, Li P, Pauli C, Gottesdiener L, DiPardo BJ, Hollmann TJ, Merghoub T, Wen HY, Reis-Filho JS, Riaz N, Su SM, Kalbasi A, Vasan N, Powell SN, Wolchok JD, Elemento O, Swanton C, Shoushtari AN, Parkes EE, Izar B, Bakhoum SF. Metastasis and Immune Evasion from Extracellular cGAMP Hydrolysis. Cancer Discov. 2021 May;11(5):1212-1227. doi: 10.1158/2159-8290.CD-20-0387. Epub 2020 Dec 28. PMID: 33372007; PMCID: PMC8102348.

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