メバロン酸二リン酸脱炭酸酵素はラット肝の 細胞質に多く局在する

道原明宏、澤村 誠、家森幸男、赤﨑健司、辻 宏

Biol. Pharm. Bull., 24 (11), 1235-1240 (2001)

Mevalonate Pyrophosphate Decarboxylase is Predominantly Located in the Cytosol of Rat Hepatocytes

Akihiro Michihara, Makoto Sawamura*, Yukio Yamori**, Kenji Akasaki, and Hiroshi Tsuji

ABSTRACT: Mevalonate pyrophosphate decarboxylase (MPD) is found in the 100,000 × g supernatant fraction of cells or tissues and is considered to be a cytosolic protein. Recently, other groups reported that MPD is mostly located in the peroxisomes. In this study, we used two different methods to determine whether MPD is predominantly located in the peroxisomes or the cytosol of rat hepatocytes. 1) In permeabilized rat hepatocytes or normal rat kidney cells treated with digitonin, which lack cytosolic enzyme, MPD was mainly present in the medium. 2) Double immunofluorecent labeling of cells with both anti-MPD antibody and anti-hexokinase antibody yielded an immunofluorescent pattern for both enzymes typical of the cytosolic protein. These results indicate that MPD is predominantly located in the cytosol of rat hepatocytes.

抄録 今回我々は2つの異なる方法を用いてメバロン酸ニリン酸脱炭酸酵素(MPD)の 細胞内分布を調べた。その結果、MPDはラット肝の細胞質に多く存在することが示された。

- * Takeda Hospital 武田病院
- ** Graduate School of Human and Environmental Studies, Kyoto University 京都大学大学院人間・環境学研究科