ONLINE ISSN : 1880-1404
PRINT ISSN : 0916-717X

Biomedical Research on Trace Elements
Vol. 16 (2005) , No. 4 325-327

[PDF (253K)] [References]

Protein Interaction between Selenophosphate Synthetase and IscS

Katsumasa Abe[1)], Ichiro Ebata[1)], Takayuki Kazuoka[1)], Hisaaki Mihara[1)], Tatsuo Kurihara[1)] and Nobuyoshi Esaki[1)]

1) Institute for Chemical Research, Kyoto University

(Accepted: October 15, 2005)

Abstract:
Selenophosphate synthetase (SelD) catalyzes the production of selenophosphate from selenide and ATP. Selenophosphate is required for synthesis of selenoprotein and 5-methylaminomethyl-2-selenouridine. Cysteine desulfurase IscS, which provides sulfur atoms for Fe-S cluster biosynthesis, has been proposed to be a selenium-delivery protein for selenophosphate biosynthesis. We have found specific interaction between SelD and IscS *in vitro*. SelD inhibited the IscS-mediated reconstitution of Fe-S cluster in ferredoxin. These findings support the proposal that IscS supplies a selenium substrate for SelD through direct protein-protein interaction.

Key words: Selenium metabolism, Selenophosphate synthetase, Cysteine desulfurase, Protein-protein interaction, Selenophosphate

[PDF (253K)] [References]

Download Meta of Article[Help]
RIS
BibTeX

Biomedical Research on Trace Elements, Vol. **16**, pp.325-327 (2005) .

JOI JST.JSTAGE/brte/16.325