Human Phosphopantothenate-cysteine ligase (PPCS) ELISA Kit

Catalog No: #EK8374

Package Size: #EK8374-1 48T #EK8374-2 96T

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Human Phosphopantothenate-cysteine ligase (PPCS) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Other Names	RP11-163G10.1; FLJ11838; MGC117357; MGC138220; OTTHUMP00000008433
Accession No.	Q9HAB8
Uniprot	Q9HAB8
GeneID	79717;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:0.156-10 ng/mL

Sensitivity:0.078 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate PPCS in samples. An antibody specific for PPCS has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyPPCS present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PPCS is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of PPCS bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:Biosynthesis of coenzyme A (CoA) from pantothenic acid (vitamin B5) is an essential universal pathway in prokaryotes and eukaryotes. PPCS (EC 6.3.2.5), one of the last enzymes in this pathway, converts phosphopantothenate to phosphopantothenoylcysteine.

Daugherty et al. (2002) showed that recombinant PPCS functioned within the CoA synthetic pathway. PPCS used ATP for the activation of substrate in the ligation reaction 4 times more efficiently than CTP. Daugherty et al. (2002) verified the function of PPCS by complementation in E. coli. Incubation of PPCS, PPCDC, and the bifunctional enzyme COASY with the necessary substrates and cofactors reconstituted the 4-step biochemical transformation of phosphopantothenate to CoA.

Note: This product is for in vitro research use only