Rat Sphingosine-1-phosphate phosphatase 1 (SGPP1) ELISA Kit

Catalog No: #EK7345

Package Size: #EK7345-1 48T #EK7345-2 96T

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Description

Product Name	Rat Sphingosine-1-phosphate phosphatase 1 (SGPP1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (Rattus norvegicus)
Other Names	SPPase1; sphingosine-1-phosphatase
Accession No.	Q99P55
Uniprot	Q99P55
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:0.057 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 SGPP1 in samples. An antibody specific for SGPP1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anySGPP1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for SGPP1 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 SGPP1 bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:Sphingosine-1-phosphate (S1P) is a bioactive sphingolipid metabolite that regulates diverse biologic processes. SGPP1 catalyzes the degradation of S1P via salvage and recycling of sphingosine into long-chain ceramides . The deduced 430-amino acid mouse protein shares 17% amino acid identity with yeast Lbp1. The deduced 441-amino acid protein shares 76% amino acid identity with its mouse homolog. Transfection of HEK293 or Chinese hamster ovary (CHO) cells with SGPP1 resulted in marked increase in SGPP1 activity in membrane fractions. SGPP1 was highly specific toward long-chain sphingoid base phosphates and degraded S1P, dihydro-S1P, and phyto-S1P. SGPP1 activity was independent of any cation requirements, including Mg(2+), and was not inhibited by EDTA but was inhibited by Zn(2+).

Note: This product is for in vitro research use only