Rat Dihydropyrimidine dehydrogenase (DPYD) ELISA Kit

Catalog No: #EK10536

Package Size: #EK10536-1 48T #EK10536-2 96T

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

Description

Product Name	Rat Dihydropyrimidine dehydrogenase (DPYD) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (Rattus norvegicus)
Other Names	DHP; DHPDHASE; DPD; MGC132008; MGC70799; dihydrothymine dehydrogenase|dihydrouracil dehydrogenase
Accession No.	O89000
Uniprot	O89000
GeneID	81656;
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 DPYD in samples. An antibody specific for DPYD has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyDPYD present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for DPYD 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 DPYD bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:Dihydropyrimidine dehydrogenase (DPD) is an enzyme that is involved in pyrimidine degradation. It is the initial and rate-limiting step in pyrimidine catabolism. It catalyzes the reduction of uracil and thymine. It is also involved in the degradation of the chemotherapeutic drugs 5-fluorouracil and Tegafur-uracil.The sequence of the gene suggested that DPD has at least 3 distinct domains: a possible NADPH binding site and FAD-binding site in the N terminus, 2 motifs of putative iron/sulfur-binding sites near the C terminus, and a peptide domain corresponding to the uracil-binding site.

Expression of the pig enzyme in E. coli catalyzed the reduction of uracil, thymine, and 5-fluorouracil (5FU) with kinetics approximating those published for the enzyme purified from mammalian liver.

Note: This product is for in vitro research use only