

Rabbit Anti-DCP/Cy5 Conjugated antibody

SL1037R-Cy5

Product Name	Anti-DCP/Cy5
Chinese Name	Cy5 标记的异常凝血酶原/脱- γ -羧基凝血酶原抗体
Alias	Des-gamma-carboxy (abnormal)prothrombin; Des-Gamma-carboxy-prothrombin.
Research Area	Tumour
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human Mouse Rat
Applications	Flow-Cyt=1:50-200 IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	70kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human DCP
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Storage	
Product Detail	background: Des-gamma carboxyprothrombin (DCP), also known as protein induced by vitamin K absence/antagonist-II (PIVKA-II), is an abnormal form of the coagulation protein, prothrombin. Normally, the prothrombin precursor undergoes post-translational carboxylation (addition of a carboxylic acid group) by gamma-glutamyl carboxylase in the liver prior to secretion into plasma. DCP/PIVKA-II may be detected in people with deficiency of vitamin K (due to poor nutrition or malabsorption) and in those taking warfarin or

other medication that inhibits the action of vitamin K.

Function:

Thrombin, which cleaves bonds after Arg and Lys, converts fibrinogen to fibrin and activates factors V, VII, VIII, XIII, and, in complex with thrombomodulin, protein C. Functions in blood homeostasis, inflammation and wound healing.

Subunit:

Heterodimer (named alpha-thrombin) of a light and a heavy chain; disulfide-linked. Forms a heterodimer with SERPINA5.

Subcellular Location:

Secreted, extracellular space.

Tissue Specificity:

Expressed by the liver and secreted in plasma.

Post-translational modifications:

The gamma-carboxyglutamyl residues, which bind calcium ions, result from the carboxylation of glutamyl residues by a microsomal enzyme, the vitamin K-dependent carboxylase. The modified residues are necessary for the calcium-dependent interaction with a negatively charged phospholipid surface, which is essential for the conversion of prothrombin to thrombin.

N-glycosylated. N-glycan heterogeneity at Asn-121: Hex3HexNAc3 (minor), Hex4HexNAc3 (minor) and Hex5HexNAc4 (major). At Asn-143: Hex4HexNAc3 (minor) and Hex5HexNAc4 (major).

Factor II deficiency (FA2D) [MIM:613679]: A very rare blood coagulation disorder characterized by mucocutaneous bleeding symptoms. The severity of the bleeding manifestations correlates with blood factor II levels. Note=The disease is caused by mutations affecting the gene represented in this entry.

Ischemic stroke (ISCHSTR) [MIM:601367]: A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors. Note=Disease susceptibility is associated with variations affecting the gene represented in this

Thrombophilia due to thrombin defect (THPH1) [MIM:188050]: A multifactorial disorder of hemostasis characterized by abnormal platelet aggregation in response to various agents and recurrent thrombi formation. Note=The disease is caused by mutations affecting the gene represented in this entry. A common genetic variation in the 3-prime untranslated region of the prothrombin gene is associated with elevated plasma prothrombin levels and

an increased risk of venous thrombosis.

Pregnancy loss, recurrent, 2 (RPRGL2) [MIM:614390]: A common complication of pregnancy, resulting in spontaneous abortion before the fetus has reached viability. The term includes all miscarriages from the time of conception until 24 weeks of gestation. Recurrent pregnancy loss is defined as 3 or more consecutive spontaneous abortions. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.

Similarity:

Belongs to the peptidase S1 family.

Contains 1 Gla (gamma-carboxy-glutamate) domain.

Contains 2 kringle domains.

Contains 1 peptidase S1 domain.

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

正常肝细胞中，在内质网内可将 DCP 羧化使之成为有活性的凝血酶原，一旦机体需要，凝血酶原即可转变成凝血酶参与机体的各项生理功能，当有 Tumour 细胞发生时，DCP 明显升高。DCP 主要用于肝癌方面的研究；有学者认为：联合应用 DCP 和 AFP 对于早期诊断 HCC（原发性肝细胞癌）有较大的帮助。