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Product datasheet

Human Thrombomodulin ELISA Kit (CD141) ab46508

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Overview

Product name Human Thrombomodulin ELISA Kit (CD141)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	6			3.9%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	6			9.8%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity < 0.31 ng/ml

Range 0.625 ng/ml - 20 ng/ml

Recovery 109 %

Assay time 1h 45m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Abcam's Thrombomodulin (CD141) Human *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Thrombomodulin (CD141) in serum, plasma, buffered solutions and supernatants.

A monoclonal antibody specific for Thrombomodulin has been coated onto the wells of the microtiter strips provided. Samples, including standards of known Thrombomodulin concentrations, control specimens or unknowns are pipetted into these wells. During the first incubation, the standards or samples and a biotinylated monoclonal antibody specific for Thrombomodulin are simultaneously incubated. After washing, the enzyme Streptavidin-HRP, that binds the biotinylated antibody is added, incubated and washed. A TMB substrate solution is added which acts on the bound enzyme to induce a colored reaction product. The intensity of this colored product is directly proportional to the concentration of Thrombomodulin present in the samples.

This kit will recognize both endogenous and recombinant Human Thrombomodulin.

Platform Microplate

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	Identifier	1 x 96 tests	2 x 96 tests	1 x 96 tests	2 x 96 tests
10X Standard Diluent Buffer	Black	1 x 15ml	1 x 25ml	1 x 15ml	1 x 25ml
200X Wash Buffer	White	1 x 10ml	2 x 10ml	1 x 10ml	2 x 10ml
Biotinylated Antibody Diluent	Red	1 x 7ml	1 x 13ml	1 x 7ml	1 x 13ml
Biotinylated anti-Thrombomodulin	Red	1 x 400µl	2 x 400µl	1 x 400µl	2 x 400µl
Chromogen TMB Substrate Solution		1 x 11ml	1 x 24ml	1 x 11ml	1 x 24ml
Control	Silver	2 vials	4 vials	2 vials	4 vials
HRP Diluent	Red	1 x 12ml	1 x 23ml	1 x 12ml	1 x 23ml
Stop Reagent	Black	1 x 11ml	2 x 11ml	1 x 11ml	2 x 11ml
Streptavidin-HRP		2 x 5µl	4 x 5µl	2 x 5µl	4 x 5µl
Thrombomodulin Microplate (12 x 8 well strips)		1 unit	2 units	1 unit	2 units
Thrombomodulin Standard (lyophilized)	Yellow	2 vials	4 vials	2 vials	4 vials

Function Thrombomodulin is a specific endothelial cell receptor that forms a 1:1 stoichiometric complex with thrombin. This complex is responsible for the conversion of protein C to the activated protein C (protein Ca). Once evolved, protein Ca scissions the activated cofactors of the coagulation mechanism, factor Va and factor VIIIa, and thereby reduces the amount of thrombin generated.

Tissue specificity Endothelial cells are unique in synthesizing thrombomodulin.

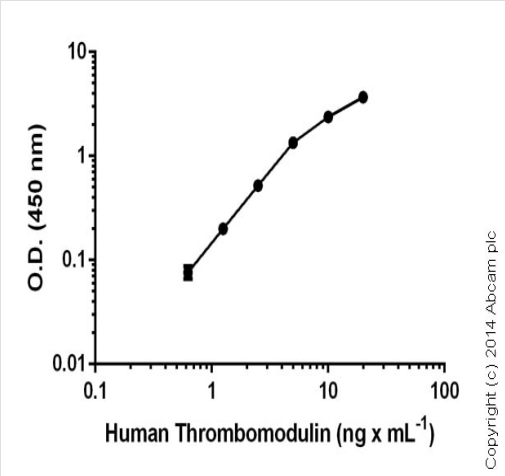
Involvement in disease Defects in THBD are the cause of thrombophilia due to thrombomodulin defect (THR-THBD) [MIM:188040]. A hemostatic disorder characterized by a tendency to thrombosis.
Defects in THBD are a cause of susceptibility to hemolytic uremic syndrome atypical type 6 (AHUS6) [MIM:612926]. An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Note=Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the phenotype.

Sequence similarities Contains 1 C-type lectin domain.
Contains 6 EGF-like domains.

Post-translational N-glycosylated.

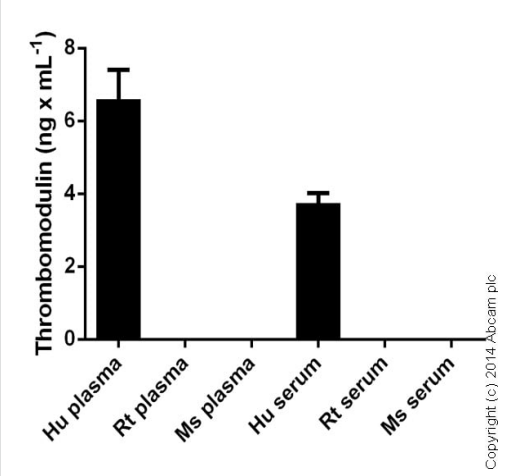
modifications	The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.
Cellular localization	Membrane.

Images



Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Sandwich ELISA - Thrombomodulin (CD141) Human ELISA Kit (ab46508)



Thrombomodulin measured in biological fluids showing quantity (ng) per mL of tested sample. Samples were diluted 2-16 fold.

Sandwich ELISA - Thrombomodulin (CD141) Human ELISA Kit (ab46508)

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