abcam

Product datasheet

Human Von Willebrand Factor ELISA Kit (VWF) ab108918

23 References 2 Images

Overview

Product name Human Von Willebrand Factor ELISA Kit (VWF)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				5.6%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				9.6%

Sample type Cell culture supernatant, Serum, Plasma

Assay type Sandwich (quantitative)

Sensitivity = 0.38 mIU/ml

Range 0.625 mIU/ml - 40 mIU/ml

Recovery 98 %

Assay time 5h 00m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Human

Product overview Human Von Willebrand Factor (VWF) *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Human Von Willebrand Factor in plasma, serum, and cell culture supernatants.

A Von Willebrand Factor specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Von Willebrand Factor specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow

after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Von Willebrand Factor captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

Platform Microplate

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
100X Biotinylated Human Von Williebrand Factor Antibody	1 x 60µl
Chromogen Substrate	1 x 7ml
Sealing Tapes	3 units
Stop Solution	1 x 11ml
Von Williebrand Factor Microplate (12 x 8 well strips)	1 unit
Von Williebrand Factor Standard	1 vial

Function Important in the maintenance of hemostasis, it promotes adhesion of platelets to the sites of vascular injury by forming a molecular bridge between sub-endothelial collagen matrix and platelet-surface receptor complex GPIb-IX-V. Also acts as a chaperone for coagulation factor VIII, delivering it to the site of injury, stabilizing its heterodimeric structure and protecting it from premature clearance from plasma.

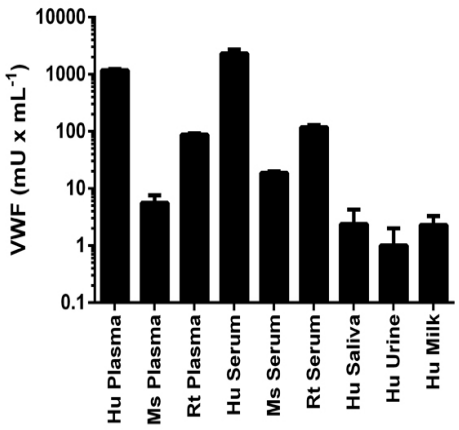
Tissue specificity Plasma.

Involvement in disease Defects in VWF are the cause of von Willebrand disease (VWD) [MIM:277480]. VWD defines a group of hemorrhagic disorders in which the von Willebrand factor is either quantitatively or qualitatively abnormal resulting in altered platelet function. Symptoms vary depending on severity and disease type but may include prolonged bleeding time, deficiency of factor VIII and impaired platelet adhesion. Type I von Willebrand disease is the most common form and is characterized by partial quantitative plasmatic deficiency of an otherwise structurally and functionally normal Willebrand factor; type II is associated with a qualitative deficiency and functional anomalies of the Willebrand factor; type III is the most severe form and is characterized by total or near-total absence of Willebrand factor in the plasma and cellular compartments, also leading to a profound deficiency of plasmatic factor VIII.

Sequence similarities Contains 1 CTCK (C-terminal cystine knot-like) domain.
Contains 4 TIL (trypsin inhibitory-like) domains.
Contains 3 VWFA domains.

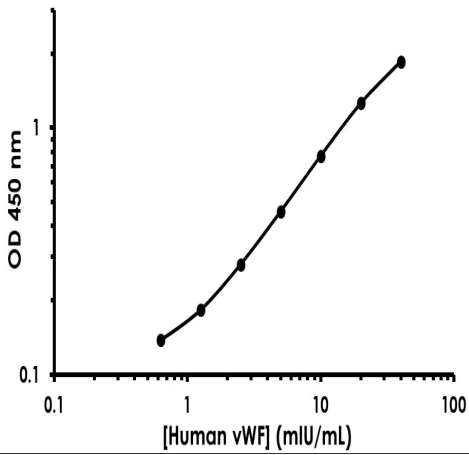
	Contains 3 VWFC domains. Contains 4 VWFD domains.
Domain	The von Willebrand antigen 2 is required for multimerization of vWF and for its targeting to storage granules.
Post-translational modifications	All cysteine residues are involved in intrachain or interchain disulfide bonds. N- and O-glycosylated.
Cellular localization	Secreted. Secreted > extracellular space > extracellular matrix. Localized to storage granules.

Images



Sandwich ELISA - Von Willebrand Factor (VWF) Human ELISA Kit (ab108918)

VWF measured in biological fluids with background signal subtracted (duplicates +/- SD). There is limited cross-reactivity in mouse (< 2%) and rat samples (< 15%).



Human von Willebrand Factor ELISA Kit example standard curve

Example von Willebrand Factor standard curve – data provided for demonstration purposes only.

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