SANTA CRUZ BIOTECHNOLOGY, INC.

VWF (C-20): sc-8068

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Von Willebrand disease is a congenital bleeding disorder caused by defects in the von Willebrand factor protein (VWF). VWF is a multimeric glycoprotein that is found in endothelial cells, plasma and platelets, and it is involved in the coagulation of blood at injury sites. VWF acts as a carrier protein for Factor VIII, a cofactor required for coagulation, and it promotes platelet adhesion and aggregation. Several factors are known to stimulate the binding of VWF to platelets, including glycoprotein 1β, ristocetin, botrocetin, collagen, sulphatides and heparin. Of the several domains contained within VWF, the A1, A2 and A3 domains have been shown to mediate this activation. VWF is thought to undergo a variety of posttranslational modifications that influence the affinity and availability for Factor VII, including cleavage of the propeptide and formation of N-terminal intersubunit disulfide bonds.

CHROMOSOMAL LOCATION

Genetic locus: VWF (human) mapping to 12p13.31; Vwf (mouse) mapping to 6 F3.

SOURCE

VWF (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of VWF of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8068 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VWF (C-20) is recommended for detection of VWF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for VWF siRNA (h): sc-36828, VWF siRNA (m): sc-36829, VWF shRNA Plasmid (h): sc-36828-SH, VWF shRNA Plasmid (m): sc-36829-SH, VWF shRNA (h) Lentiviral Particles: sc-36828-V and VWF shRNA (m) Lentiviral Particles: sc-36829-V.

Molecular Weight of VWF: 250 kDa.

Positive Controls: mouse heart extract: sc-2254, human platelet whole cell lysate: sc-363773 or HUV-EC-C whole cell lysate: sc-364180.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

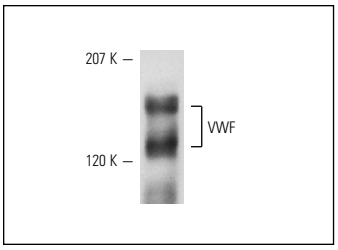
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

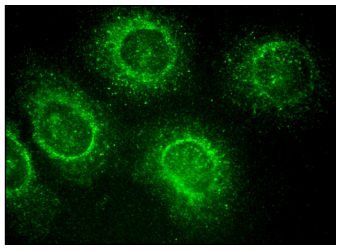
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



VWF (C-20): sc-8068. Western blot analysis of VWF expression in mouse heart extract showing multiple forms of VWF.



VWF (C-20): sc-8068. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Simoncini, T., et al. 2002. Genomic and nongenomic mechanisms of nitric oxide synthesis induction in human endothelial cells by a fourth-generation selective estrogen receptor modulator. Endocrinology 143: 2052-2061.
2. Lee, F.Y., et al. 2008. Synergistic antitumor activity of ixabepilone (BMS-247550) plus bevacizumab in multiple *in vivo* tumor models. Clin. Cancer Res. 14: 8123-8131.
3. Yadav, N., et al. 2009. The therapeutic effect of bone marrow-derived liver cells in the phenotypic correction of murine hemophilia A. Blood 114: 4552-4561.
4. Nakahara, M., et al. 2009. High-efficiency production of subculturable vascular endothelial cells from feeder-free human embryonic stem cells without cell-sorting technique. Cloning Stem Cells 11: 509-522.
5. Przygodzki, T., et al. 2010. 1-methylnicotinamide effects on the selected markers of endothelial function, inflammation and haemostasis in diabetic rats. Eur. J. Pharmacol. 640: 157-162.
6. Fujioka, M., et al. 2010. ADAMTS13 gene deletion aggravates ischemic brain damage: a possible neuroprotective role of ADAMTS13 by ameliorating postischemic hypoperfusion. Blood 115: 1650-1653.
7. Tripathy, D., et al. 2010. Cerebrovascular expression of proteins related to inflammation, oxidative stress and neurotoxicity is altered with aging. J. Neuroinflammation 7: 63.
8. Ma, M., et al. 2010. Major histocompatibility complex-I expression on embryonic stem cell-derived vascular progenitor cells is critical for syngeneic transplant survival. Stem Cells 28: 1465-1475.