

# TBC1D20 (F-9): sc-515697

## BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D20 (TBC1 domain family, member 20), also known as FLJ45119 or C20orf140, is a 403 amino acid multi-pass membrane protein that acts as a GTPase-activating protein for Rab family members. TBC1D20 also mediates viral replication and has been identified as a host protein for hepatitis C virus nonstructural protein NS5A (HCV NS5A). HCV NS5A and TBC1D20 directly interact via the N-terminal amphipathic helix of HCV NS5A and C-terminal domain of TBC1D20. TBC1D20 contains one Rab-GAP TBC domain and exists as three isoforms which result due to alternative splicing events. The gene encoding TBC1D20 maps to human chromosome 20, which comprises approximately 2% of the human genome, contains nearly 63 million bases and encodes over 600 genes. Chromosome 20 contains a region with numerous genes which are thought important for seminal production and may be potential targets for male contraception.

## REFERENCES

- Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.
- Sklan, E.H., et al. 2007. TBC1D20 is a Rab1 GTPase-activating protein that mediates hepatitis C virus replication. *J. Biol. Chem.* 282: 36354-36361.
- Sklan, E.H., et al. 2007. A Rab-GAP TBC domain protein binds hepatitis C virus NS5A and mediates viral replication. *J. Virol.* 81: 11096-11105.
- O'Rand, M.G., et al. 2007. Eppin: an epididymal protease inhibitor and a target for male contraception. *Soc. Reprod. Fertil. Suppl.* 63: 445-453.

## CHROMOSOMAL LOCATION

Genetic locus: TBC1D20 (human) mapping to 20p13; Tbc1d20 (mouse) mapping to 2 G3.

## SOURCE

TBC1D20 (F-9) is a mouse monoclonal antibody raised against amino acids 194-310 mapping within an internal region of TBC1D20 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TBC1D20 (F-9) is available conjugated to agarose (sc-515697 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515697 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515697 PE), fluorescein (sc-515697 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515697 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515697 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515697 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515697 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515697 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515697 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

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

## APPLICATIONS

TBC1D20 (F-9) is recommended for detection of TBC1D20 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 TBC1D20 siRNA (h): sc-76633, TBC1D20 siRNA (m): sc-154098, TBC1D20 shRNA Plasmid (h): sc-76633-SH, TBC1D20 shRNA Plasmid (m): sc-154098-SH, TBC1D20 shRNA (h) Lentiviral Particles: sc-76633-V and TBC1D20 shRNA (m) Lentiviral Particles: sc-154098-V.

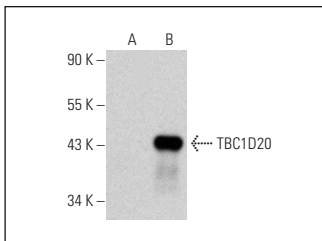
Molecular Weight of TBC1D20: 46 kDa.

Positive Controls: TBC1D20 (m2): 293T Lysate: sc-127637.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



TBC1D20 (F-9): sc-515697. Western blot analysis of TBC1D20 expression in non-transfected: sc-117752 (A) and mouse TBC1D20 transfected: sc-127637 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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