## SANTA CRUZ BIOTECHNOLOGY, INC.

# MORG1 (T-20): sc-74680



## BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. MORG1 (mitogen-activated protein kinase organizer 1) is a 315 amino acid protein that localizes to both the nucleus and the cytoplasm and contains seven WD repeats. Interacting with HIF PHD3, MORG1 functions as a molecular scaffold protein for several different multimeric protein complexes and is thought to play a role in pre-mRNA splicing, as well as protein degradation and cellular responses to hypoxia.

## REFERENCES

- 1. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. FEBS Lett. 307: 131-134.
- 2. Neer, E.J., Schmidt, C.J., Nambudripad, R. and Smith, T.F. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
- 3. Smith, T.F., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
- Jurica, M.S., Licklider, L.J., Gygi, S.R., Grigorieff, N. and Moore, M.J. 2002. Purification and characterization of native spliceosomes suitable for threedimensional structural analysis. RNA 8: 426-439.
- Vomastek, T., Schaeffer, H.J., Tarcsafalvi, A., Smolkin, M.E., Bissonette, E.A. and Weber, M.J. 2004. Modular construction of a signaling scaffold: MORG1 interacts with components of the ERK cascade and links ERK signaling to specific agonists. Proc. Natl. Acad. Sci. USA 101: 6981-6986.
- Hopfer, U., Hopfer, H., Jablonski, K., Stahl, R.A. and Wolf, G. 2006. The novel WD-repeat protein MORG1 acts as a molecular scaffold for hypoxiainducible factor prolyl hydroxylase 3 (PHD3). J. Biol. Chem. 281: 8645-8655.
- 7. Haase, D., Keiner, S., Mawrin, C. and Wolf, G. 2009. Reduced MORG1 expression in ischemic human brain. Neurosci. Lett. 455: 46-50.

## CHROMOSOMAL LOCATION

Genetic locus: WDR83 (human) mapping to 19p13.2; Wdr83 (mouse) mapping to 8 C3.

#### SOURCE

MORG1 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MORG1 of human origin.

### **STORAGE**

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

#### **RESEARCH USE**

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

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74680 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

MORG1 (T-20) is recommended for detection of MORG1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MORG1 (T-20) is also recommended for detection of MORG1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MORG1 siRNA (h): sc-75812, MORG1 siRNA (m): sc-75813, MORG1 shRNA Plasmid (h): sc-75812-SH, MORG1 shRNA Plasmid (m): sc-75813-SH, MORG1 shRNA (h) Lentiviral Particles: sc-75812-V and MORG1 shRNA (m) Lentiviral Particles: sc-75813-V.

Molecular Weight of MORG1: 34 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

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