SANTA CRUZ BIOTECHNOLOGY, INC.

HDGFRP3 (M-19): sc-55227

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HDGFRP3 (hepatoma-derived growth factor-related protein 3), also known as HRP-3 or HDGF-2, is a 203 amino acid nuclear protein belonging to the HDGF family and containing one PWWP domain. HDGF was initially characterized as a secreted mitogen from the Huh-7 human hepatoma cell line. HDGF is also reported to be involved in organ development and lung remodeling after injury by promoting proliferation of lung epithelial cells. HDGFRP3 is thought to be a radioresistance-related gene, regulating the radio- and chemo-resistant phenotype by reactive oxygen species-dependent p53 activation. HDGFRP3 is also thought to promote neurite outgrowth in cortical neurons via microtubule interaction, and may play a role in cell proliferation and enhance DNA synthesis. The HDGFRP3 gene is located on human chromosome 15 and conserved in mouse, rat, chimpanzee, bovine, canine and more.

REFERENCES

1. Ikegame, K., et al. 1999. A new member of a hepatoma-derived growth factor gene family can translocate to the nucleus. Biochem. Biophys. Res. Commun. 266: 81-87.
2. Cherepanov, P., et al. 2004. Identification of an evolutionarily conserved domain in human lens epithelium-derived growth factor/transcriptional co-activator p75 (LEDGF/p75) that binds HIV-1 integrase. J. Biol. Chem. 279: 48883-48892.
3. El-Tahir, H.M., et al. 2009. Hepatoma-derived growth factor-related protein-3 interacts with microtubules and promotes neurite outgrowth in mouse cortical neurons. J. Biol. Chem. 284: 11637-11651.
4. Bisson, N., et al. 2011. Selected reaction monitoring mass spectrometry reveals the dynamics of signaling through the GRB2 adaptor. Nat. Biotechnol. 29: 653-658.
5. Yun, H.S., et al. 2013. Depletion of hepatoma-derived growth factor-related protein-3 induces apoptotic sensitization of radioresistant A549 cells via reactive oxygen species-dependent p53 activation. Biochem. Biophys. Res. Commun. 439: 333-339.
6. Zhu, J., et al. 2013. Protein interaction discovery using parallel analysis of translated ORFs (PLATO). Nat. Biotechnol. 31: 331-334.

CHROMOSOMAL LOCATION

Genetic locus: Hdgfrp3 (mouse) mapping to 7 D3.

SOURCE

HDGFRP3 (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HDGFRP3 of mouse origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55227 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HDGFRP3 (M-19) is recommended for detection of HDGFRP3 of mouse 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).

HDGFRP3 (M-19) is also recommended for detection of HDGFRP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HDGFRP3 siRNA (m): sc-72348, HDGFRP3 shRNA Plasmid (m): sc-72348-SH and HDGFRP3 shRNA (m) Lentiviral Particles: sc-72348-V.

Molecular Weight of HDGFRP3: 30 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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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