SANTA CRUZ BIOTECHNOLOGY, INC.

# HDGFRP3 (G-10): sc-390944

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.


## CHROMOSOMAL LOCATION

Genetic locus: HDGFRP3 (human) mapping to 15q25.2; Hdgfrp3 (mouse) mapping to 7 D3.

## SOURCE

HDGFRP3 (G-10) is a mouse monoclonal antibody raised against amino acids 91-203 mapping at the C-terminus of HDGFRP3 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HDGFRP3 (G-10) is available conjugated to agarose (sc-390944 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390944 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390944 PE), fluorescein (sc-390944 FITC), Alexa Fluor® 488 (sc-390944 AF488), Alexa Fluor® 546 (sc-390944 AF546), Alexa Fluor® 594 (sc-390944 AF594) or Alexa Fluor® 647 (sc-390944 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390944 AF680) or Alexa Fluor® 790 (sc-390944 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

HDGFRP3 (G-10) is recommended for detection of HDGFRP3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

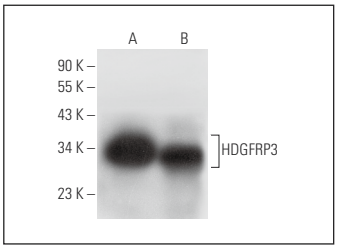
HDGFRP3 (G-10) is also recommended for detection of HDGFRP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HDGFRP3 siRNA (h): sc-72347, HDGFRP3 siRNA (m): sc-72348, HDGFRP3 shRNA Plasmid (h): sc-72347-SH, HDGFRP3 shRNA Plasmid (m): sc-72348-SH, HDGFRP3 shRNA (h) Lentiviral Particles: sc-72347-V and HDGFRP3 shRNA (m) Lentiviral Particles: sc-72348-V.

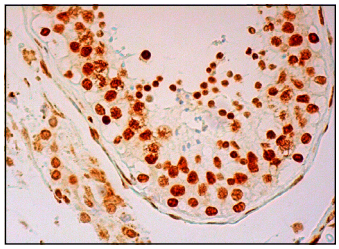
Molecular Weight of HDGFRP3: 30 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or human spleen extract: sc-363779.

## DATA




HDGFRP3 (G-10): sc-390944. Western blot analysis of HDGFRP3 expression in Y79 whole cell lysate (**A**) and human spleen tissue extract (**B**).



HDGFRP3 (G-10): sc-390944. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts and Leydig cells.

## SELECT PRODUCT CITATIONS


1. Fan, C., et al. 2015. Metformin exerts anticancer effects through the inhibition of the Sonic hedgehog signaling pathway in breast cancer. Int. J. Mol. Med. 36: 204-214.


## 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.

## PROTOCOLS

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