SANTA CRUZ BIOTECHNOLOGY, INC.

# HDGFRP2 (G-19): sc-55223

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

HDGFRP2 (hepatoma-derived growth factor-related protein 2), also known as HRP-2 or HDGF-2, is a 671 amino acid nuclear protein belonging to the HDGF family and containing one PWWP domain. The PWWP domain is located at the N-terminus and binds to methyl-lysine-containing histones. 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. HDGFRP2 is thought to be involved in the control of cellular growth, particularly in hepatocellular carcinoma tissue where it is overexpressed, through the regulation of cyclin D1 expression. HDGFRP2 is also thought to be involved in LEDGF/p75-independent HIV-1 replication, determining HIV-1 integration site selection. The HDGFRP2 gene is located on human chromosome 19 and is conserved in mouse, rat, chimpanzee, bovine, canine and chicken.

## REFERENCES


1. Izumoto, Y., et al. 1997. Hepatoma-derived growth factor belongs to a gene family in mice showing significant homology in the amino terminus. Biochem. Biophys. Res. Commun. 238: 26-32.
2. Vanegas, M., et al. 2005. Identification of the LEDGF/p75 HIV-1 integrase-interaction domain and NLS reveals NLS-independent chromatin tethering. J. Cell Sci. 118: 1733-1743.
3. Vandegraaff, N., et al. 2006. Biochemical and genetic analyses of integrase-interacting proteins lens epithelium-derived growth factor (LEDGF)/p75 and hepatoma-derived growth factor related protein 2 (HRP2) in preintegration complex function and HIV-1 replication. Virology 346: 415-426.
4. Wu, H., et al. 2011. Structural and histone binding ability characterizations of human PWWP domains. PLoS ONE 6: e18919.
5. Schrijvers, R., et al. 2012. LEDGF/p75-independent HIV-1 replication demonstrates a role for HRP-2 and remains sensitive to inhibition by LEDGINs. PLoS Pathog. 8: e1002558.
6. Schrijvers, R., et al. 2012. HRP-2 determines HIV-1 integration site selection in LEDGF/p75 depleted cells. Retrovirology 9: 84.


## CHROMOSOMAL LOCATION

Genetic locus: HDGFRP2 (human) mapping to 19p13.3.

## SOURCE

HDGFRP2 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HDGFRP2 of human origin.

## 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-55223 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

HDGFRP2 (G-19) is recommended for detection of HDGFRP2 of 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), 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).

Suitable for use as control antibody for HDGFRP2 siRNA (h): sc-105539, HDGFRP2 shRNA Plasmid (h): sc-105539-SH and HDGFRP2 shRNA (h) Lentiviral Particles: sc-105539-V.

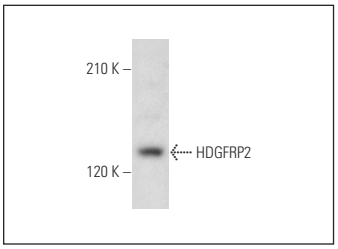
Molecular Weight of HDGFRP2: 74 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

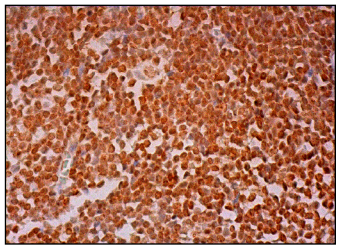
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA




HDGFRP2 (G-19): sc-55223. Western blot analysis of HDGFRP2 expression in HeLa whole cell lysate.



HDGFRP2 (G-19): sc-55223. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in germinal centesr and cells in non-germinal centers.

## 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.