

# HPA2 (H-100): sc-30123

## BACKGROUND

Heparanases degrade heparan sulfate side chains of heparan sulfate proteoglycans (HSPGs) in the extracellular matrix and play an important role in the extravasation of blood-borne tumor cells and inflammatory leukocytes. Upon degradation, heparanases free growth factors and cytokines that stimulate cell proliferation and chemotaxis. Human heparanase 1-3 (HPA1-3) are members of the heparanase family. Three alternative splice variants of the HPA2 transcripts encode predicted intracellular membrane-bound proteins of various lengths. HPA2 is expressed in brain, small intestine, prostate, mammary gland, testis, and uterus. While HPA2 is not expressed in normal pancreas, it is expressed in pancreatic tumor cell lines MiaPaca-2 and Panc-1 as well as pancreatic adenocarcinoma.

## REFERENCES

1. Vlodavsky, I., Fuks, Z., Bar-Ner, M., Ariav, Y. and Schirmacher, V. 1983. Lymphoma cell mediated degradation of sulfated proteoglycans in the subendothelial extracellular matrix: relationship to tumor cell metastasis. *Cancer Res.* 43: 2704-2711.
2. Bashkin, P., Doctrow, S., Klagsbrun, M., Svahn, C.M., Folkman, J. and Vlodavsky, I., 1989. Basic fibroblast growth factor binds to sunendothelial extracellular matrix and is released by heparitinase and heparin-like molecules. *Biochemistry* 28: 1737-1743.
3. Vlodavsky, I., Korner, G., Ishai-Michaeli, R., Bashkin, P., Bar-Shavit, R. and Fuks, Z., 1990. Extracellular matrix-resident growth factors and enzyme: Possible involvement in tumor metastasis and angiogenesis. *Cancer Metastasis Rev.* 9: 203-226.
4. Vlodavsky, I., Eldor, A., Haimovitz-Friedman, A., Metzner, Y., Ishai-Michaeli, R., Lider, O., Napastek, Y., Cohen, I.R. and Fuks, Z. 1992. Expression of heparanase by platelets and circulating cells of the immune system: possible involvement in diapedesis and extravasation. *Invasion Metastasis* 12: 112-127.
5. McKenzie, E., Tyson, K., Stamps, A., Smith, P., Turner, P., Barry, R., Hircock, M., Patel, S., Barry, E., Stubberfield, C., Terrett, J. and Page, M. 2000. Cloning and expression of profiling of HPA2, a novel mammalian heparanase family member. *Biochem. Biophys. Res. Commun.* 276: 1170-1177.

## CHROMOSOMAL LOCATION

Genetic locus: HPSE2 (human) mapping to 10q24.2; Hpse2 (mouse) mapping to 19 C3.

## SOURCE

HPA2/3 (H-100) is a rabbit polyclonal antibody raised against amino acids 1-100 mapping at the N-terminus of heparanase 2a 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.

## RESEARCH USE

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

## APPLICATIONS

HPA2 (H-100) is recommended for detection of heparanase 2 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HPA2 (H-100) is also recommended for detection of heparanase 2 in additional species, including equine, canine and bovine.

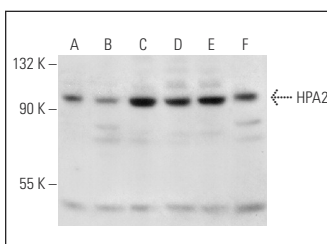
Suitable for use as control antibody for HPA2 siRNA (h): sc-43852, Hpse2 siRNA (m): sc-148692, HPA2 shRNA Plasmid (h): sc-43852-SH, Hpse2 shRNA Plasmid (m): sc-148692-SH, HPA2 shRNA (h) Lentiviral Particles: sc-43852-V and Hpse2 shRNA (m) Lentiviral Particles: sc-148692-V.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or A549 cell lysate: sc-2413.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HPA2 (H-100): sc-30123. Western blot analysis of HPA2 expression in NCI-H1299 (A), A549 (B), HeLa (C), Jurkat (D), CCRF-CEM (E) and RAW 264.7 (F) whole cell lysates.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.