SANTA CRUZ BIOTECHNOLOGY, INC.

# HPRG (G-10): sc-398239

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The exact function of the histidine-proline-rich glycoprotein (HPRG) is not yet known. The HPRG protein sequence has a high proline and histidine content and has many internal repeat sequences. HPRG binds dyes, heme and divalent metal ions and can inhibit rosette formation. This protein has been shown to interact with thrombospondin, heparin and plasminogen. It may also play a role in mediating the contact activation phase of the intrinsic blood coagulation cascade. HPRG is expressed by the liver and is detected as a secreted protein in plasma.

## REFERENCES


1. Koide, T., et al. 1986. Amino acid sequence of human histidine-rich glycoprotein derived from the nucleotide sequence of its cDNA. Biochemistry 25: 2220-2225.
2. Hennis, B.C., et al. 1994. Evidence for the absence of intron H of the histidine-rich glycoprotein (HRG) gene: genetic mapping and *in situ* localization of HRG to chromosome 3q28-q29. Genomics 19: 195-197.
3. Borza, D.B., et al. 2004. Effects of histidine-proline-rich glycoprotein on plasminogen activation in solution and on surfaces. Blood Coagul. Fibrinolysis 15: 663-672.
4. Donate, F., et al. 2004. Extracellular tropomyosin: a novel common pathway target for anti-angiogenic therapy. Curr. Cancer Drug Targets 4: 543-553.


## CHROMOSOMAL LOCATION

Genetic locus: HRG (human) mapping to 3q27.3; Hrg (mouse) mapping to 16 B1.

## SOURCE

HPRG (G-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 125-149 near the N-terminus of HPRG of human origin.

## PRODUCT

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

HPRG (G-10) is available conjugated to agarose (sc-398239 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398239 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398239 PE), fluorescein (sc-398239 FITC), Alexa Fluor® 488 (sc-398239 AF488), Alexa Fluor® 546 (sc-398239 AF546), Alexa Fluor® 594 (sc-398239 AF594) or Alexa Fluor® 647 (sc-398239 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398239 AF680) or Alexa Fluor® 790 (sc-398239 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398239 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).



## RESEARCH USE

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

## APPLICATIONS

HPRG (G-10) is recommended for detection of mature HRG and HPRG precursor 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HPRG (G-10) is also recommended for detection of mature HRG and HPRG precursor in additional species, including equine.

Suitable for use as control antibody for HPRG siRNA (h): sc-60808, HPRG siRNA (m): sc-60809, HPRG shRNA Plasmid (h): sc-60808-SH, HPRG shRNA Plasmid (m): sc-60809-SH, HPRG shRNA (h) Lentiviral Particles: sc-60808-V and HPRG shRNA (m) Lentiviral Particles: sc-60809-V.

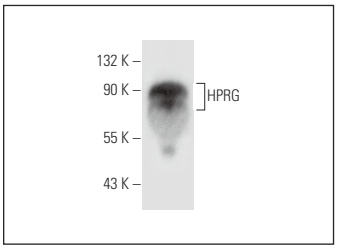
Molecular Weight of HPRG glycosylation: 70-95 kDa.

Positive Controls: human plasma extract: sc-364374.

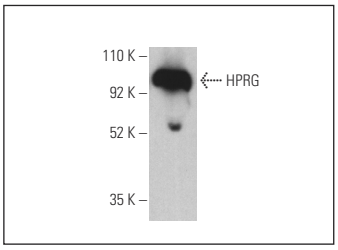
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




HPRG (G-10): sc-398239. Western blot analysis of HPRG in human plasma.




HPRG (G-10) HRP: sc-398239. Direct western blot analysis of HPRG expression in human plasma whole cell lysate.

## SELECT PRODUCT CITATIONS


1. Muko, R., et al. 2023. Unique insertion/deletion polymorphisms within histidine-rich region of histidine-rich glycoprotein in Thoroughbred horses. Sci. Rep. 13: 300.


## STORAGE

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