SANTA CRUZ BIOTECHNOLOGY, INC.

GP73 (F-12): sc-393372

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GP73 (also known as Golgi phosphoprotein 2, GOLPH 2 or Golgi membrane protein), is a widely expressed, epithelial-specific, type II transmembrane protein which resides in the Golgi apparatus, where it is responsible for the posttranslational modification of proteins produced in the rough ER while assisting in the transport of proteins through the Golgi. The human GP73 gene has been mapped within a BAC and localized to chromosome 9q21.33. GP73 levels rise in those who have been diagnosed with acute and chronic liver diseases.

REFERENCES

1. Kladney, R.D., et al. 2000. GP73, a novel Golgi-localized protein upregulated by viral infection. Gene 249: 53-65.
2. Kladney, R.D., et al. 2002. Expression liver disease. Hepatology 35: 1431-1440.
3. Kladney, R.D., et al. 2002. Upregulation of the Golgi protein GP73 by adenovirus infection requires the E1A CtBP interaction domain. Virology 301: 236-246.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606804. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Iftikhar, R., et al. 2004. Disease- and cell-specific expression of GP73 in human liver disease. Am. J. Gastroenterol. 99: 1087-1095.
6. Maitra, A. and Thuluvath, P.J. 2004. GP73 and liver disease: a (Golgi) complex enigma. Am. J. Gastroenterol. 99: 1096-1098.
7. Block, T.M., et al. 2005. Use of targeted glycoproteomics to identify serum glycoproteins that correlate with liver cancer in woodchucks and humans. Proc. Natl. Acad. Sci. USA 102: 779-784.
8. Marrero, J.A., et al. 2005. GP73, a resident Golgi carcinoma. J. Hepatol. 43: 1007-1012.

CHROMOSOMAL LOCATION

Genetic locus: GOLM1 (human) mapping to 9q21.33.

SOURCE

GP73 (F-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 330-364 near the C-terminus of GP73 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.

Blocking peptide available for competition studies, sc-393372 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

GP73 (F-12) is recommended for detection of GP73 of 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).

Suitable for use as control antibody for GP73 siRNA (h): sc-60711, GP73 shRNA Plasmid (h): sc-60711-SH and GP73 shRNA (h) Lentiviral Particles: sc-60711-V.

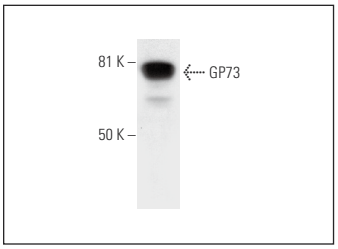
Molecular Weight of GP73: 73 kDa.

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

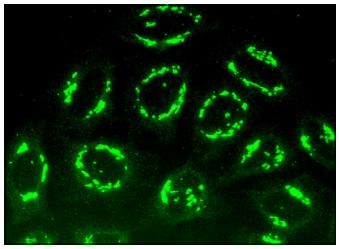
RECOMMENDED SUPPORT REAGENTS

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



GP73 (F-12): sc-393372. Western blot analysis of GP73 expression in HeLa whole cell lysate.



GP73 (F-12): sc-393372. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus localization.

SELECT PRODUCT CITATIONS

1. Wan, L., et al. 2022. GP73 is a glucogenic hormone contributing to SARS-CoV-2-induced hyperglycemia. Nat. Metab. 4: 29-43.

RESEARCH USE

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

CONJUGATES

See **GP73 (F-2): sc-365817** for GP73 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.