

# GP73 (F-2): sc-365817

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: GOLM1 (human) mapping to 9q21.33; Golm1 (mouse) mapping to 13 B2.

## SOURCE

GP73 (F-2) is a mouse monoclonal antibody raised against amino acids 1-114 mapping at the N-terminus of GP73 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GP73 (F-2) is available conjugated to agarose (sc-365817 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365817 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365817 PE), fluorescein (sc-365817 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365817 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365817 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365817 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365817 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365817 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365817 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

GP73 (F-2) is recommended for detection of GP73 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).

Suitable for use as control antibody for GP73 siRNA (h): sc-60711, GP73 siRNA (m): sc-60712, GP73 shRNA Plasmid (h): sc-60711-SH, GP73 shRNA Plasmid (m): sc-60712-SH, GP73 shRNA (h) Lentiviral Particles: sc-60711-V and GP73 shRNA (m) Lentiviral Particles: sc-60712-V.

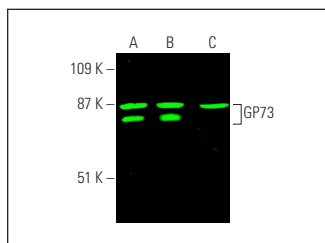
Molecular Weight of GP73: 73 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SW480 cell lysate: sc-2219 or SH-SY5Y cell lysate: sc-3812.

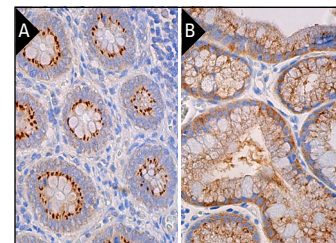
## RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



GP73 (F-2): sc-365817. Near-infrared western blot analysis of GP73 expression in HeLa (A), SH-SY5Y (B) and SW480 (C) whole cell lysates. Blocked with UltraCruz<sup>®</sup> Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



GP73 (F-2): sc-365817. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix (A) and human gall bladder (B) tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Yao, S., et al. 2013. Diagnostic value of immunohistochemical staining of GP73, GPC3, DCP, CD34, CD31, and reticulin staining in hepatocellular carcinoma. *J. Histochem. Cytochem.* 61: 639-648.
2. Donizy, P., et al. 2016. Golgi-related proteins GOLPH2 (GP73/GOLM1) and GOLPH3 (GOPP1/MIDAS) in cutaneous melanoma: patterns of expression and prognostic significance. *Int. J. Mol. Sci.* 17: 1619.
3. Yang, S.L., et al. 2018. Hepatitis B virus upregulates GP73 expression by activating the HIF-2α signaling pathway. *Oncol. Lett.* 15: 5264-5270.
4. Liu, Y., et al. 2021. GP73-mediated secretion of AFP and GP73 promotes proliferation and metastasis of hepatocellular carcinoma cells. *Oncogenesis* 10: 69.

## 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) for detailed protocols and support products.