

PIG-W (H-22): sc-133912

BACKGROUND

Phosphatidylinositol-glycans (PIGs) are multi-pass transmembrane proteins that localize to the endoplasmic reticulum. PIGs exhibit various functions but all are crucial for the biosynthesis of the glycosylphosphatidylinositol (GPI)-anchor. Some PIG proteins are components of the GPI transamidase complex and play a role in the recognition of either the GPI attachment signal or the lipid portion of GPI. Other PIGs belong to the glycosyltransferase complex and function in the transfer of N-acetylglucosamine (GlcNAc) to phosphatidylinositol (PI). A variety of other PIGs play distinct roles in GPI synthesis including mannosylation of the GPI-anchor. PIG-W (phosphatidylinositol-glycan biosynthesis class W protein) is a 504 amino acid multi-pass membrane protein that functions in the third step of GPI biosynthesis and acylates the inositol ring of phosphatidylinositol.

REFERENCES

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4. Ueda, E., Nishimura, J., Kitani, T., Nasu, K., Kageyama, T., Kim, Y.U., Takeda, J. and Kinoshita, T. 1992. Deficient surface expression of glycosylphosphatidylinositol-anchored proteins in B cell lines established from patients with paroxysmal nocturnal hemoglobinuria. *Int. Immunol.* 4: 1263-1271.
5. Güther, M.L. and Ferguson, M.A. 1993. The microanalysis of glycosylphosphatidylinositol glycans. *Methods Mol. Biol.* 14: 99-117.
6. Watanabe, R., Inoue, N., Westfall, B., Taron, C.H., Orlean, P., Takeda, J. and Kinoshita, T. 1998. The first step of glycosylphosphatidylinositol biosynthesis is mediated by a complex of PIG-A, PIG-H, PIG-C and GPI1. *EMBO J.* 17: 877-885.

CHROMOSOMAL LOCATION

Genetic locus: PIGW (human) mapping to 17q12.

SOURCE

PIG-W (H-22) is an affinity purified rabbit polyclonal antibody raised against synthetic PIG-W peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

RESEARCH USE

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

APPLICATIONS

PIG-W (H-22) is recommended for detection of PIG-W 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PIG-W siRNA (h): sc-93698, PIG-W shRNA Plasmid (h): sc-93698-SH and PIG-W shRNA (h) Lentiviral Particles: sc-93698-V.

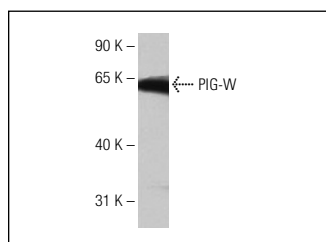
Molecular Weight of PIG-W: 57 kDa.

Positive Controls: NTERA2 whole cell lysate: or HeLa whole cell lysate: sc-2200.

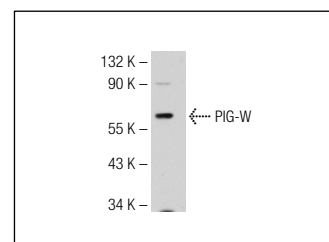
RECOMMENDED SECONDARY REAGENTS

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).

DATA



PIG-W (H-22): sc-133912. Western blot analysis of PIG-W expression in NTERA2 whole cell lysate.



PIG-W (H-22): sc-133912. Western blot analysis of PIG-W expression in HeLa whole cell lysate.

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.