

PIG-U (E-15): sc-49410

BACKGROUND

Phosphatidylinositol-glycans (PIGs) are multi-pass transmembrane proteins that localize to the endoplasmic reticulum. PIGs are crucial for the synthesis of N-acetylglucosaminyl-phosphatidylinositol, a very early intermediate in glycosylphosphatidylinositol (GPI)-anchor biosynthesis. PIGs play a role in the recognition of either the GPI attachment signal or the lipid portion of GPI. PIG-U (CDC91L1) is a critical part of GPI transamidase (GPIT), a multisubunit membrane-bound complex also consisting of Gaa1, Gpi8, PIG-S and PIG-T. GPIT recognizes C-terminal signal sequences on proproteins and replaces them with specific GPI lipids. The PIG-U gene is oncogenic and is implicated in the development of human bladder cancer. Overexpression of PIG-U causes increased expression of the urokinase receptor (uPAR), a GPI-anchored protein, thereby amplifying signal transducer and activator of transcription (Stat3) phosphorylation in bladder cancer cells, which may lead to cancer.

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CHROMOSOMAL LOCATION

Genetic locus: PIG-U (human) mapping to 20q11.22; PIG-U (mouse) mapping to 2 H1.

SOURCE

PIG-U (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PIG-U 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.

Blocking peptide available for competition studies, sc-49410 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PIG-U (E-15) is recommended for detection of PIG-U of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PIG-U (E-15) is also recommended for detection of PIG-U in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PIG-U siRNA (h): sc-61351, PIG-U siRNA (m): sc-61352, PIG-U shRNA Plasmid (h): sc-61351-SH, PIG-U shRNA Plasmid (m): sc-61352-SH, PIG-U shRNA (h) Lentiviral Particles: sc-61351-V and PIG-U shRNA (m) Lentiviral Particles: sc-61352-V.

Molecular Weight of PIG-U: 50 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.