**BACKGROUND**

Gastrin-releasing peptide (GRP) stimulates the release of gastrin as well as other gastrointestinal hormones in addition to acting as an autocrine growth factor for certain cell types. The human GRP receptor (GRPR) gene maps to chromosome Xp22.2 and encodes a seven transmembrane domain protein. Whereas normal human pancreas and stomach express GRPR, normal lung, colon and prostate do not. Well-differentiated colon tumors coexpress GRP and GRPR. Prostate carcinoma also expresses GRPR. Following exposure to nicotine, human lung fibroblasts increase expression of GRPR. Ablent GRPR expression occurs more frequently in female normal lung than male normal lung, and may account for the increased susceptibility of women to tobacco-induced lung cancer.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GRPR (human) mapping to Xp22.2; Grpr (mouse) mapping to X F5.

**SOURCE**

GRPR (D-1) is a mouse monoclonal antibody raised against amino acids 1-50 mapping at the N-terminus of GRPR of mouse origin.

**PRODUCT**

Each vial contains 200 µg IgG2b lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. GRPR (D-1) is available conjugated to agarose (sc-398549 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398549 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398549 PE), fluorescein (sc-398549 FITC), Alexa Fluor® 488 (sc-398549 AF488), Alexa Fluor® 546 (sc-398549 AF546), Alexa Fluor® 594 (sc-398549 AF594) or Alexa Fluor® 647 (sc-398549 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398549 AF680) or Alexa Fluor® 790 (sc-398549 AF790), 200 µg/ml, for Near-Infrared (NIR) IF, WB, IF and FCM.

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**APPLICATIONS**

GRPR (D-1) is recommended for detection of GRPR of mouse, rat, human and hamster 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 GRPR siRNA (h): sc-106924, GRPR siRNA (m): sc-145783, GRPR shRNA Plasmid (h): sc-106924-SH, GRPR shRNA Plasmid (m): sc-145783-SH, GRPR shRNA (h) Lentiviral Particles: sc-106924-V and GRPR shRNA (m) Lentiviral Particles: sc-145783-V.

Molecular Weight of endogenous GRPR: 43 kDa.

Molecular Weight of glycosylated GRPR: 70-95 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, LADMAC whole cell lysate: sc-364189 or NIH/3T3 whole cell lysate: sc-2210.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ, BP-HRP: sc-516132 or m-IgGκ, BP-HRP (Cruz Marker) sc-516132-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM 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 µg agarose/2.0 µl).

**DATA**

**RESEARCH USE**

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

**STORAGE**

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