SANTA CRUZ BIOTECHNOLOGY, INC.

GRPR (h): CHO Lysate: sc-110069

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. Aberrent 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

1. Spindel, E.R., Giladi, E., Brehm, P., Goodman, R.H. and Segerson, T.P. 1990. Cloning and functional characterization of a complementary DNA encoding the murine fibroblast bombesin/gastrin-releasing peptide receptor. Mol. Endocrinol. 4: 1956-1963.
2. Maslen, G.L. and Boyd, Y. 1993. Comparative mapping of the GRPR locus on the X chromosomes of man and mouse. Genomics 17: 106-109.
3. Sachs, G., Zeng, N. and Prinz, C. 1997. Physiology of isolated gastric endocrine cells. Annu. Rev. Physiol. 59: 243-256.
4. Terashi, H., Itami, S., Tadokoro, T., Takeyama, M., Katagiri, K. and Takayasu, S. 1998. Growth stimulation of normal melanocytes and nevocellular nevus cells by gastrin releasing peptide (GRP). J. Dermatol. Sci. 17: 93-100.
5. Carroll, R.E., Matkowskyj, K.A., Chakrabarti, S., McDonald, T.J. and Benya, R.V. 1999. Aberrant expression of gastrin-releasing peptide and its receptor by well-differentiated colon cancers in humans. Am. J. Physiol. 276: G655-G665.
6. Sun, B., Halmos, G., Schally, A.V., Wang, X. and Martinez, M. 2000. Presence of receptors for bombesin/gastrin-releasing peptide and mRNA for three receptor subtypes in human prostate cancers. Prostate 42: 295-303.
7. Shriver, S.P., Bourdeau, H.A., Gubish, C.T., Tirpak, D.L., Davis, A.L., Luketich, J.D. and Siegfried, J.M. 2000. Sex-specific expression of gastrin-releasing peptide receptor: relationship to smoking history and risk of lung cancer. J. Natl. Cancer Inst. 92: 24-33.
8. Xiao, D., Wang, J., Hampton, L.L. and Weber, H.C. 2001. The human gastrin-releasing peptide receptor gene structure, its tissue expression and promoter. Gene 264: 95-103.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: GRPR (human) mapping to Xp22.2.

PRODUCT

GRPR (h): CHO Lysate represents a lysate of human GRPR transfected CHO cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

GRPR (h): CHO Lysate is suitable as a Western Blotting positive control for human reactive GRPR antibodies. Recommended use: 10-20 µl per lane.

Control CHO Lysate: sc-117750 is available as a Western Blotting negative control lysate derived from non-transfected CHO cells.

RESEARCH USE

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