SANTA CRUZ BIOTECHNOLOGY, INC.

AGR2 (h): 293 Lysate: sc-112951

BACKGROUND

AGR2 (anterior gradient protein 2), also known as AG2, GOB-4 or HAG-2, is a member of the anterior gradient homolog family. It is the human ortholog of XAG-2, the secreted *Xenopus laevis* anterior gradient protein. In *X. laevis*, it is involved in cement gland differentiation and neural marker gene expression. AGR2 is a secretory protein encoded by two different AGR2 transcripts. It interacts with LYPD3 and α-dystroglycan (DAG-1). AGR2 is ubiquitously expressed with upregulated expression in prostate cancer, breast cancer, lung cancer, renal carcinomas and endometrial carcinomas. AGR2 expression is positively correlated with that of the estrogen receptor (ER) and is negatively correlated with that of the epidermal growth factor receptor (EGFR). AGR2 may serve as a potential therapeutic marker for various cancers.

REFERENCES

1. Huber, M., et al. 2004. Comparison of proteomic and genomic analyses of the human breast cancer cell line T47D and the antiestrogen-resistant derivative T47D-r. Mol. Cell. Proteomics 3: 43-55.
2. Liu, D., et al. 2005. Human homologue of cement gland protein, a novel metastasis inducer associated with breast carcinomas. Cancer Res. 65: 3796-3805.
3. Zhang, J.S., et al. 2005. AGR2, an androgen-inducible secretory protein overexpressed in prostate cancer. Genes Chromosomes Cancer 43: 249-259.
4. Zheng, W., et al. 2006. Evaluation of AGR2 and AGR3 as candidate genes for inflammatory bowel disease. Genes Immun. 7: 11-18.
5. Zhu, H., et al. 2006. High resolution analysis of genomic aberrations by metaphase and array comparative genomic hybridization identifies candidate tumour genes in lung cancer cell lines. Cancer Lett. 245: 303-314.
6. Durand, G., et al. 2006. Detection of new methicillin-resistant *Staphylococcus aureus* clones containing the toxic shock syndrome toxin 1 gene responsible for hospital- and community-acquired infections in France. J. Clin. Microbiol. 44: 847-853.
7. Fritzsche, F.R., et al. 2006. Prognostic relevance of AGR2 expression in breast cancer. Clin. Cancer Res. 12: 1728-1734.
8. Innes, H.E., et al. 2006. Significance of the metastasis-inducing protein AGR2 for outcome in hormonally treated breast cancer patients. Br. J. Cancer 94: 1057-1065.
9. Zhang, Y., et al. 2007. Increased expression of anterior gradient-2 is significantly associated with poor survival of prostate cancer patients. Prostate Cancer Prostatic Dis. 10: 293-300.

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: AGR2 (human) mapping to 7p21.1.

PRODUCT

AGR2 (h): 293 Lysate represents a lysate of human AGR2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

AGR2 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive AGR2 antibodies. Recommended use: 10-20 µl per lane.

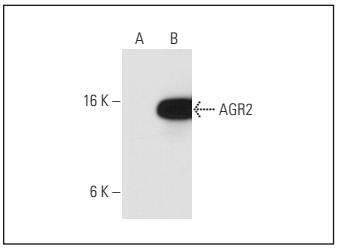
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

AGR2 (6C5): sc-101211 is recommended as a positive control antibody for Western Blot analysis of enhanced human AGR2 expression in AGR2 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



AGR2 (6C5): sc-101211. Western blot analysis of AGR2 expression in non-transfected: sc-110760 (**A**) and human AGR2 transfected: sc-112951 (**B**) 293 whole cell lysates.

RESEARCH USE

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