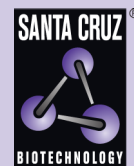


AGR2/3 (C-7): sc-376653



The Power to Question

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 up-regulated 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.

CHROMOSOMAL LOCATION

Genetic locus: AGR2/AGR3 (human) mapping to 7p21.1; Agr2/Agr3 (mouse) mapping to 12 A3.

SOURCE

AGR2/3 (C-7) is a mouse monoclonal antibody raised against amino acids 107-153 mapping within an internal region of AGR2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AGR2/3 (C-7) is available conjugated to agarose (sc-376653 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376653 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376653 PE), fluorescein (sc-376653 FITC), Alexa Fluor[®] 488 (sc-376653 AF488), Alexa Fluor[®] 546 (sc-376653 AF546), Alexa Fluor[®] 594 (sc-376653 AF594) or Alexa Fluor[®] 647 (sc-376653 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376653 AF680) or Alexa Fluor[®] 790 (sc-376653 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

AGR2/3 (C-7) is recommended for detection of AGR2 and AGR3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AGR2/3 (C-7) is also recommended for detection of AGR2 and AGR3 in additional species, including equine.

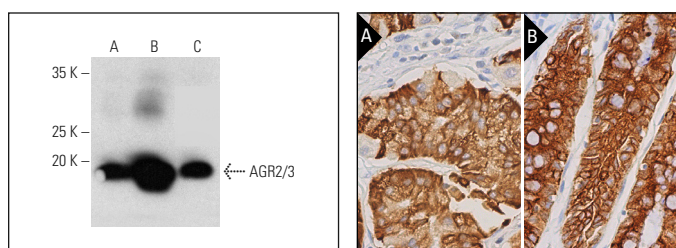
Molecular Weight of AGR2/3: 18-21 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, T-47D cell lysate: sc-2293 or PC-3 cell lysate: sc-2220.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



AGR2/3 (C-7): sc-376653. Western blot analysis of AGR2/3 expression in MCF7 (A), T-47D (B) and PC-3 (C) whole cell lysates.

AGR2/3 (C-7): sc-376653. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and membrane staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. El-Sheikh Ali, H., et al. 2021. Equine cervical remodeling during placentitis and the prepartum period: a transcriptomic approach. *Reproduction* 161: 603-621.

RESEARCH USE

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