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Anterior Gradient 2 (AGR2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6279a

Product Information

Application	IHC-P, IF, WB, E
Primary Accession	O95994
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	19979
Antigen Region	13-42

Additional Information

Gene ID	10551
Other Names	Anterior gradient protein 2 homolog, AG-2, hAG-2, HPC8, Secreted cement gland protein XAG-2 homolog, AGR2, AG2
Target/Specificity	This Anterior Gradient 2 (AGR2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 13-42 amino acids from the N-terminal region of human Anterior Gradient 2 (AGR2).
Dilution	IHC-P~~1:100~500 IF~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anterior Gradient 2 (AGR2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AGR2
Synonyms	AG2
Function	Required for MUC2 post-transcriptional synthesis and secretion. May play a role in the production of mucus by intestinal cells (By similarity).

	Proto-oncogene that may play a role in cell migration, cell differentiation and cell growth. Promotes cell adhesion (PubMed:23274113).
Cellular Location	Secreted. Endoplasmic reticulum {ECO:0000250|UniProtKB:O88312}
Tissue Location	Expressed strongly in trachea, lung, stomach, colon, prostate and small intestine. Expressed weakly in pituitary gland, salivary gland, mammary gland, bladder, appendix, ovary, fetal lung, uterus, pancreas, kidney, fetal kidney, testis, placenta, thyroid gland and in estrogen receptor (ER)-positive breast cancer cell lines

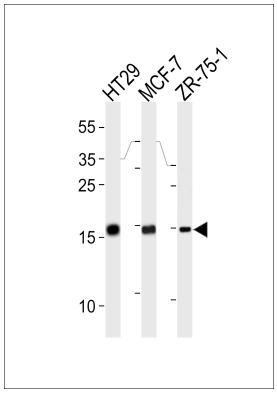
Background

Anterior gradient 2 (AGR2) is known as a cancer cell marker specifically up-regulated in response to depletion of serum and oxygen. AGR2 has been identified as a tumor marker in primary and secondary cancer lesions, and as a marker for detection of circulating tumor cells (CTCs). Elevated levels of AGR2 are known to increase the metastatic potential of cancer cells, but conditions leading to increased expression of AGR2 are not well understood.

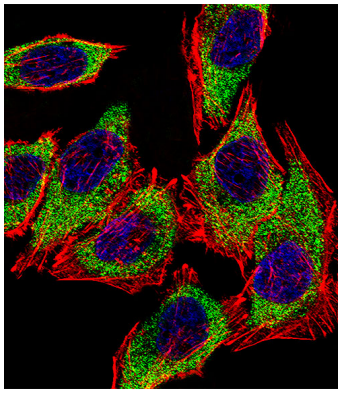
References

Zweitzig,D.R., Mol. Cell. Biochem. 306 (1-2), 255-260 (2007)
Zhang,Y., Prostate Cancer Prostatic Dis. 10 (3), 293-300 (2007)
Fletcher,G.C., Br. J. Cancer 88 (4), 579-585 (2003)

Images

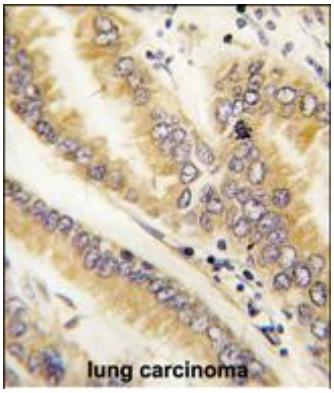


AGR2 Antibody (N-term) (Cat. #AP6279a) western blot analysis in HT29,MCF-7,ZR-75-1 cell line lysates (35ug/lane).This demonstrates the AGR2 antibody detected the AGR2 protein (arrow).



Fluorescent confocal image of A549 cell stained with AGR2 Antibody (N-term)(Cat#AP6279a).A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with AGR2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). AGR2 immunoreactivity is localized to Cytoplasm significantly.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with AGR2 antibody (N-term) (Cat.#AP6279a), which was peroxidase-conjugated to the



secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.