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AGR2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6279c

Product Information

Application	IHC-P, WB, E
Primary Accession	O95994
Other Accession	O88312, Q5RZ65
Reactivity	Human, Mouse
Predicted	Zebrafish, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	19979
Antigen Region	95-124

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 AGR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 95-124 amino acids from the Central region of human AGR2.
Dilution	IHC-P~~1:100~500 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 purified through a protein A column, followed by peptide affinity purification.
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	AGR2 Antibody (Center) 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

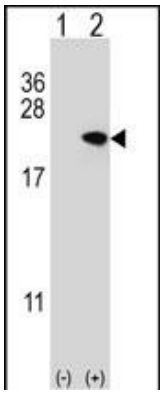
Background

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.

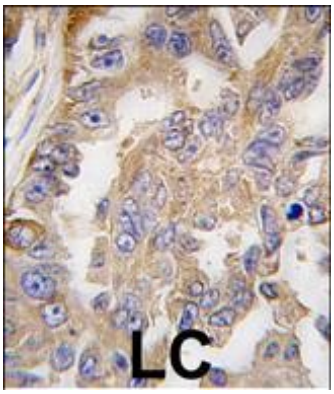
References

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



Western blot analysis of AGR2(arrow) using rabbit polyclonal AGR2 Antibody (Center) (Cat.#AP6279c).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the AGR2 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with AGR2 antibody (Center), 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.

Citations

- Anterior gradient 2 is induced in cutaneous wound and promotes wound healing through its adhesion domain.
- Downregulation of AGR2, p21, and cyclin D and alterations in p53 function were associated with tumor progression and chemotherapy resistance in epithelial ovarian carcinoma.
- Tumor-secreted anterior gradient-2 binds to VEGF and FGF2 and enhances their activities by promoting their homodimerization.
- A humanized monoclonal antibody targeting secreted anterior gradient 2 effectively inhibits the xenograft tumor growth.