

AGR2 (D9V2F) XP[®] Rabbit mAb



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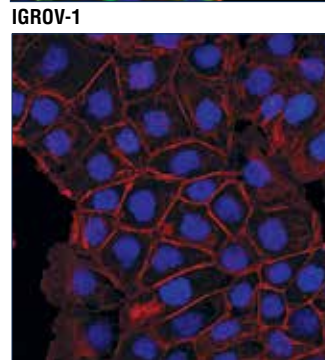
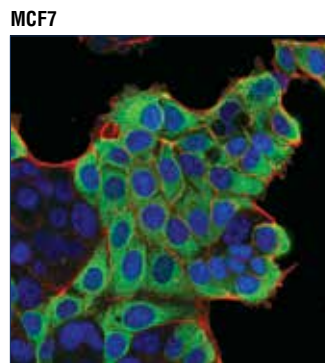
Entrez Gene ID #10551
UniProt ID #095994

Applications W, IHC-P, IF-IC, F Endogenous	Species Cross-Reactivity* H, (Mk, X)	Molecular Wt. 18 kDa	Isotype Rabbit IgG**
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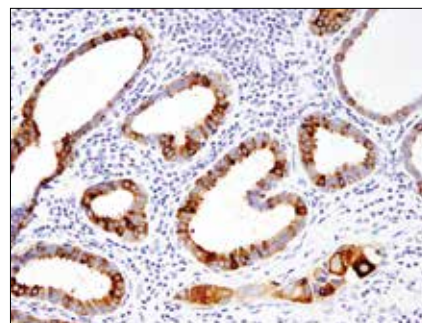
Background: Anterior gradient homolog 2 (AGR2) is a member of the protein disulfide isomerase (PDI) family of proteins and a homolog of the *Xenopus laevis* cement gland protein (1). In normal human tissues, AGR2 is expressed most abundantly in intestinal cells. Research studies have found AGR2 is overexpressed in a number of adenocarcinomas, including those derived from breast, pancreas, ovary, prostate and esophagus (2-4). *In vitro* and *in vivo* studies have shown that AGR2 positively regulates cell growth and division, while its overexpression can promote cell transformation (5,6). The latter functions of AGR2 were shown to involve YAP1-mediated up-regulation of amphiregulin expression, implicating AGR2 in both the EGF and Hippo kinase signaling pathways (6).

Specificity/Sensitivity: AGR2 (D9V2F) XP[®] Rabbit mAb recognizes endogenous levels of total AGR2 protein.

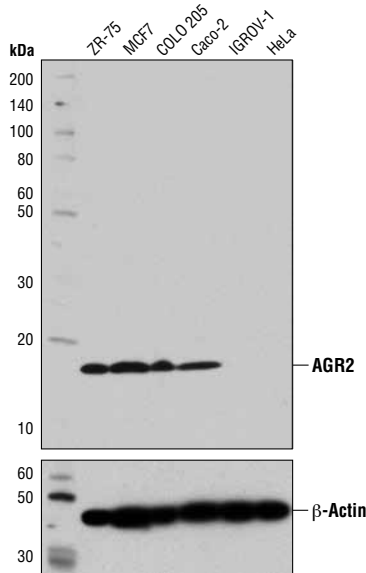
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala29 of human AGR2 protein.



Confocal immunofluorescent analysis of MCF7 cells (positive, upper) and IGROV-1 cells (negative, lower) using AGR2 (D9V2F) XP[®] Rabbit mAb (green) and β -Actin (8H10D10) Mouse mAb #3700 (red). Blue pseudocolor= DRAQ5[®] #4084 (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human breast adenocarcinoma using AGR2 (D9V2F) XP[®] Rabbit mAb.



Western blot analysis of extracts from various cell lines using AGR2 (D9V2F) XP[®] Rabbit mAb (upper) and β -Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000
Immunohistochemistry (Paraffin) 1:800†

Unmasking buffer: Citrate
Antibody diluent: SignalStain[®] Antibody Diluent #8112
Detection reagent: SignalStain[®] Boost (HRP, Rabbit) #8114

†Optimal IHC dilutions determined using SignalStain[®] Boost IHC Detection Reagent.

Immunofluorescence (IF-IC) 1:100

IF Protocol: Methanol Permeabilization required

Flow Cytometry 1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

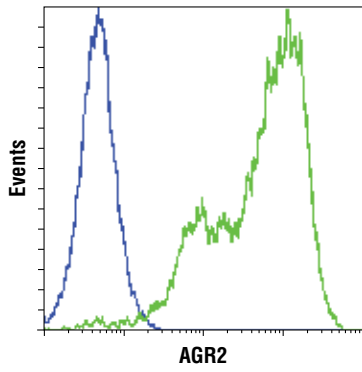
- (1) Maresh, E.L. et al. (2010) *BMC Cancer* 10, 680.
- (2) Pizzi, M. et al. (2012) *Appl Immunohistochem Mol Morphol* 20, 31-6.
- (3) Wang, Z. et al. (2008) *Cancer Res* 68, 492-7.
- (4) Park, K. et al. (2011) *Exp Mol Med* 43, 91-100.
- (5) Vanderlaag, K.E. et al. (2010) *Breast Cancer Res* 12, R32.
- (6) Dong, A. et al. (2011) *J Biol Chem* 286, 18301-10.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween[®] 20 at 4°C with gentle shaking, overnight.

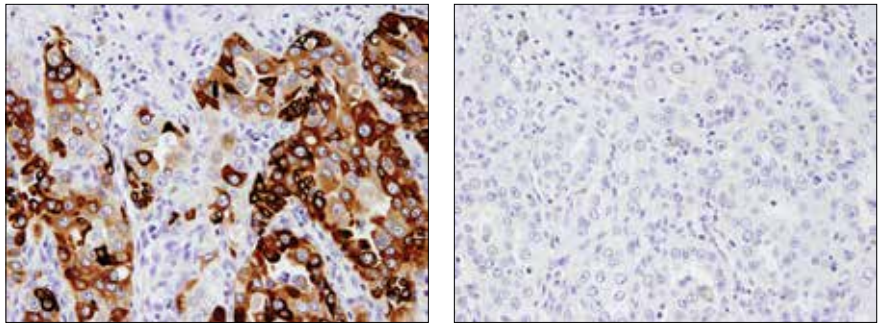
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DRAQ5[®] is a registered trademark of Biostatus Limited.



Flow cytometric analysis of HeLa (blue) and MCF7 (green) cells using AGR2 (D9V2F) XP[®] Rabbit mAb. Anti-rabbit IgG (H+L), F(ab)₂ Fragment (Alexa Fluor[®] 647 Conjugate) #4414 was used as a secondary antibody.



Immunohistochemical analysis of paraffin-embedded human non-small cell lung carcinoma using AGR2 (D9V2F) XP[®] Rabbit mAb in the presence of control peptide (right) and antigen-specific peptide (left).