

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human AG-2/AGR2 in direct ELISA and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant human AG-3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant human AG-2/AGR2 Arg21-Leu175 Accession # O95994
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

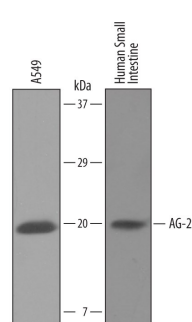
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

DATA

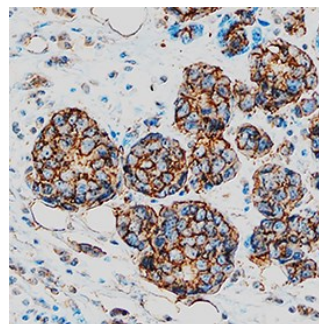
Western Blot



Detection of Human AG-2/AGR2 by Western Blot.

Western blot shows lysates of A549 human lung carcinoma cell line and human small intestine tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human AG-2/AGR2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6068) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for AG-2/AGR2 at approximately 20 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



AG-2/AGR2 in Human Breast Cancer Tissue.

AG-2/AGR2 was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Sheep Anti-Human AG-2/AGR2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6068) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membrane in cancer cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

AG-2 (Anterior gradient protein 2; also AGR2, GOB4 and HPC8) is an 18-21 kDa member of the PDI family of enzymes. It is expressed in secretory cell types, such as prostate epithelium, small intestine goblet, Paneth and enteroendocrine cells, and multiple carcinoma cell types. Although AG-2 possesses a signal sequence, it appears to be rarely secreted, instead being found in the ER due the presence of a KTEL ER retention signal at its C-terminus. AG-2 forms transient disulfide linkages with molecules destined for secretion, possibly aiding protein folding. Mature human AG-2 is 155 amino acids (aa) in length (aa 21-175). Cys81 is presumed to participate in intermolecular bond formation. There is one potential alternative start site 20 aa upstream of the standard start site. Over aa 21-175, human AG-2 shares 94% aa identity with mouse AG-2.