

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Protogenin in direct ELISAs. In direct ELISAs, approximately 30% cross-reactivity with recombinant mouse Protogenin is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Protogenin Phe36-Ala952 Accession # Q2VWP7
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.

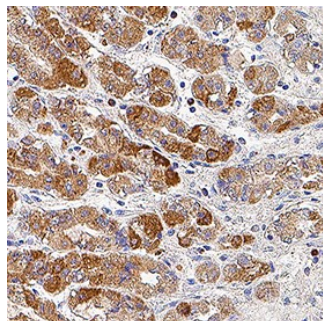
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below

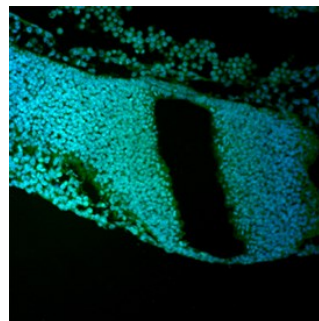
DATA

Immunohistochemistry



Detection of Protogenin in Human Stomach Tumor. Protogenin was detected in immersion fixed paraffin-embedded sections of human stomach tumor using Sheep Anti-Human Protogenin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6795) at 3 µg/ml overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using the HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016) and counterstained with hematoxylin (blue). Specific staining was localized to the membrane. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Immunohistochemistry



Protogenin in Mouse Embryo. Protogenin was detected in immersion fixed frozen sections of mouse embryo (E9.5) using Sheep Anti-Human Protogenin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6795) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 493-conjugated Anti-Sheep IgG Secondary Antibody (green; Catalog # NL012) and counterstained with DAPI (blue). Specific staining was localized to nuclei in the neural tube. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
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

PRTG (Protogenin; also Protein Shen-Dan) is a 175-180 kDa transmembrane (TM) member of the DEAL (DCC et al) family of proteins. It is expressed in the embryo in the period before E10.5 in mouse (day 28 in human), and appears in a widespread distribution. Through homophilic intercellular interaction, it regulates initial epiblast cell migration/ingression, thus impacting somite organization. Via its actions as a neural tube epithelial cell receptor, it binds soluble 60 kDa ERdj3, resulting in a suppression of neuron differentiation. Mature human PRTG is an 1115 amino acid (aa) type I TM glycoprotein. It contains a 917 aa extracellular domain (ECD) (aa 36-952) and a 180 aa cytoplasmic region. The ECD possesses four consecutive Ig-like domains (aa 36-411) followed by five FN type III domains (aa 419-914). There is one potential splice variant that shows a 49 aa substitution for Ala325 coupled to a deletion of aa 516-541. The ECD of human PRTG shares 93% aa identity with the ECD of mouse PRTG.

