Human LRIG1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7498

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LRIG1 in direct ELISAs. In direct ELISAs, approximately 10% cross-reactivity with recombinant mouse LRIG1 and and less 1% cross-reactivity with recombinant human LRIG3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Human embryonic kidney cell line HEK293-derived recombinant human LRIG1 Ala35-Ser779 Accession # Q96JA1
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 as a 0.2 μm filtered solution in PBS.

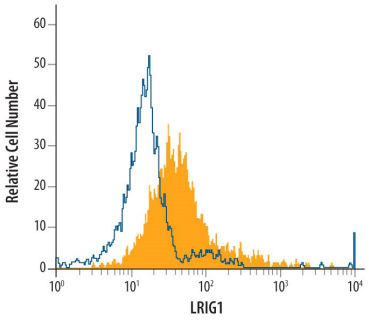
APPLICATIONS

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
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below

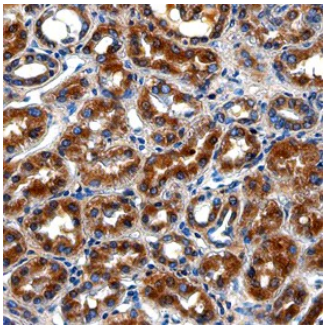
DATA

Flow Cytometry



Detection of LRIG1 in LNCaP Human Cell Line by Flow Cytometry. LNCaP human prostate cancer cell line was stained with Sheep Anti-Human LRIG1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7498, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by Allophycocyanin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0127).

Immunohistochemistry



LRIG1 in Human Kidney. LRIG1 was detected in immersion fixed paraffin-embedded sections of human kidney using Sheep Anti-Human LRIG1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7498) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). 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 the cytoplasm of epithelial cells in convoluted tubules. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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.** ● 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

LRIG1 (leucine-rich repeats and Ig-like domains-1; also LIG-1) is an approximately 134-145 kDa glycoprotein that belongs to the LRIG gene family. It is widely expressed, and appears on the surface of prostatic epithelium, endothelial cells, vascular and visceral smooth muscle, mammary epithelium, cardiac muscle, keratinocytes and neurons. LRIG1 is believed to negatively regulate the ErbB family of receptors. In particular, and in a ligand-independent manner, LRIG1 complexes with all four ErbBs, promoting their ubiquitination and decreasing their number. Alternatively, LRIG1 is suggested to bind to the ErbBs, preventing their dimerization and signal transduction. Mature human LRIG1 is a 1059 amino acid (aa) type I transmembrane protein. It contains a large 760 amino acid (aa) extracellular domain (ECD) (aa 35-794) plus a 278 aa cytoplasmic region. The ECD contains 17 LRRs (aa 35-491) and three C2-type Ig-like domains (aa 495-780). These two domain types are each sufficient for EGFR binding. There are two potential alternative splice forms. One contains a 27 aa insertion after Gly874, while another shows a 24 aa insertion after Lys387 coupled to a Gln substitution for aa 644-691. The LRIG1 ECD undergoes proteolysis, generating 100-110 and 55-60 kDa soluble fragments. Over aa 35-779, human LRIG1 shares 90% aa sequence identity with mouse LRIG1.