

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LRIG3 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse LRIG1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human LRIG3 isoform 1 (R&D Systems, Catalog # 3495-LR) Asp28-Thr807 Accession # Q6UXM1
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.

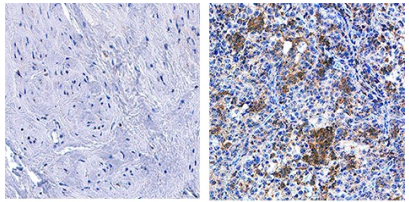
APPLICATIONS

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	0.1 µg/mL	Recombinant Human LRIG3 (Catalog # 3495-LR)
Immunohistochemistry	3-15 µg/mL	See Below

DATA

Immunohistochemistry



Normal Tissue **Cancer**

LRIG3 in Human Cervical Cancer Tissue. LRIG3 was detected in immersion fixed paraffin-embedded sections of human cervical cancer tissue using Goat Anti-Human LRIG3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3495) at 3 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS008](#)) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of 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

LRIG3 (leucine-rich repeats and Ig-like domains-3) is a 140 kDa type I transmembrane glycoprotein member of the mammalian LRIG glycoprotein family. This family contains three members who share 45 - 50% amino acid (aa) identity (1). All members contain at least fifteen LRRs, accompanied by two flanking cysteine-rich regions, and three C2-type Ig-like domains in their extracellular domains (ECD) (1). LRIG3 mRNA is widely expressed, with highest levels in stomach, skin, thyroid and small intestine (1). Human LRIG3 is synthesized as a 1120 amino acid (aa) precursor. It contains a 24 aa signal sequence, a 786 aa ECD, a 21 aa transmembrane sequence, and a 289 aa intracellular region. One splice variant exists that has a 19 aa substitution for the first 79 aa of the standard (or long) form. This substitution appears to encode an alternate signal sequence, resulting in a mature protein that lacks the first and part of the second LRR. LRIG1, a related family member, is known to bind the EGF family receptors ErbB1-4, via either its LRR or Ig-like domains. It also binds the ubiquitin ligase, c-Cbl, and promotes ubiquitination, internalization and destruction of these receptors (2, 3). It is not known whether LRIG3 performs similar functions. Within the cell, LRIG3 is expressed in the perinuclear region as well as on the cell surface. Perinuclear location of LRIG3 in grade III and IV astrocytic tumors has been associated with better patient survival (4). Human LRIG3 ECD shows 91%, 92%, 95% and 98% aa identity with mouse, rat, bovine and canine LRIG3 ECD, respectively.

References:

1. Guo, D. *et al.* (2004) *Genomics* **84**:157.
2. Gur, G. *et al.* (2004) *EMBO J.* **23**:3270.
3. Laederich, M.B. (2004) *J. Biol. Chem.* **279**:47050.
4. Guo, D. *et al.* (2006) *Acta Neuropathol. (Berl.)* **111**:238.