

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LRIG1 in ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse LRIG1 and recombinant human LRIG3 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 789211
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HEK293 human embryonic kidney cell line transfected with human LRIG1 Ala35-Ser779 Accession # Q96JA1
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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	0.25-1 µg/10 ⁶ cells	LNCaP Human Cell Line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied.

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.

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