Human LRRC52
Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1037552

Catalog Number: FAB10260N

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LCCC52 in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 1037552
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived human LRRC52 Ser24-Asp244 Accession # Q8N7C0
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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/mL	HEK293 Human Cell Line Transfected with Human LRRC52 and eGFP

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

LRRC52 (Leucine-rich repeat-containing protein 52) belongs to an extracellular leucine-rich-repeat–only (Elron) cluster, which includes five other LRRC proteins: LRRC26, LRRC38, LRRC55, LRTM1 and LRTM2 (1). Elron cluster members are type I transmembrane proteins with an extracellular domain (ECD) containing several LRR motifs and a cytoplasmic C-terminal tail with a short stretch of acidic residues (1). The mature ECD of LRRC52 is 221 amino acids (aa), containing 5 LRR motifs, and shares 76% and 78% identity with mouse and rat LRRC52, respectively. LRRC-52 is dominantly expressed in testis and skeletal muscle and is also detected in several other tissues including placenta, kidney, lung, and some glands (2, 3). LRRC52 has been identified as a testes specific SLO3 K^+ channel accessory protein in mouse (2). LRRC52 is proposed to be essential for alkalization dependent activation of the KSper current at physiological membrane potentials and pH (2). Activation of the SLO3 channel is critical in the fertilization process and loss of function results in infertility (2, 4, 5). A second Elron cluster protein, LRRC26, was recently identified as a regulatory subunit of SLO1 BK-type K^+ channels, suggesting a general function for the entire family (6). Based on function, LRRC52 might be a therapeutic target for male contraception (7).

References:

1. Dolan, J. *et al.* (2007) BMC Genomics **8**:320.
2. Yang, C. *et al.* (2011) PNAS **108**:19419.
3. Leonetti, M. *et al.* (2012) PNAS. **109**:19274.
4. Navarro, B. *et al.* (2007) PNAS **104**:7688.
5. Sanit, C. *et al.* (2010) FEBS Lett. **584**:1041.
6. Yan, J. and Aldrich, RW. (2010) Nature **466**:513.
7. Zeng, XH. *et al.* (2015) PNAS **112**:2599.

PRODUCT SPECIFIC NOTICES

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