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[Marker Primary Antibody]

Rabbit Anti-LRFN1/FITC Conjugated antibody

Catalog Number: SL12141R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-LRFN1/FITC
Immunogen:	KLH conjugated synthetic peptide derived from human LRFN1
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 ICC/IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted:Human,Mouse,Rat,Dog,Pig,Cow,Sheep)
Subcellular Location:	The cell membrane
Background:	background: LRFN1 is a 771 amino acid single-pass type I membrane protein that belongs to the LRFN family. Containing a fibronectin type-III domain, an Ig-like (immunoglobulin-like) domain, a LRRCT domain, a LRRNT domain and seven LRR (leucine-rich) repeats, LRFN1 is thought to promote neurite outgrowth in hippocampal neurons and is involved in the regulation and maintenance of excitatory synapses. LRFN1 forms heteromeric complexes with LRFN2, LRFN3, LFRN4 and LFRN5, but does not have the ability to form homomeric complexes across cell junctions of adjacent cells like other LRFN family members. The PDZ-binding motif of LRFN1 is required for neurite outgrowth promotion and for SAP 97-, NE-dlg- and PSD-95-binding. LRFN1 is encoded by a gene located on human chromosome 19q13.2 and mouse chromosome 7 A3. **Function:** Promotes neurite outgrowth in hippocampal neurons. Involved in

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	the regulation and maintenance of excitatory synapses. Induces the clustering of excitatory postsynaptic proteins, including DLG4, DLGAP1, GRIA1 and GRIN1. **Subunit:** Can form heteromeric complexes with LRFN2, LRFN3, LRFN4 and LRFN5 (By similarity). Forms homomeric complexes, but not across cell junctions (By similarity). Interacts with DLG1, DLG2, DLG3 and DLG4. Interacts with 2 AMPA receptor subunits GRIA1 and GRIA2 and NMDA receptor subunit GRIN1 (By similarity). **Subcellular Location:** Membrane; Single-pass type I membrane protein (By similarity). Cell junction, synapse (By similarity). Cell junction, synapse, postsynaptic cell membrane, postsynaptic density (By similarity). Note=Detected in excitatory, but not inhibitory, synaptic plasma membrane (By similarity). **Post-translational modifications:** Phosphorylated upon DNA damage, probably by ATM or ATR. Glycosylated. **Similarity:** Belongs to the LRFN family. Contains 1 fibronectin type-III domain. Contains 1 Ig-like (immunoglobulin-like) domain. Contains 7 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. Contains 1 LRRNT domain. **Database links:** **Entrez Gene:** 57622 Human **Entrez Gene:** 80749 Mouse **Entrez Gene:** 365222 Rat Omim: 612807 Human **SwissProt:** Q9P244 Human **SwissProt:** Q2WF71 Mouse **SwissProt:** P0C7J6 Rat **Unigene:** 97860 Human **Unigene:** 483073 Mouse **Unigene:** 234182 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.