Active Recombinant Human ELFN2 protein, His-tagged

Cat. No. ELFN2-217H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ELFN2 (Asp23-Tyr397) fused with His tag at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	23-397 a.a.
Description	ELFN2 (Extracellular leucine-rich repeat and fibronectin type III domain-containing protein 2), also known as protein phosphatase 1 regulatory subunit 29, is a member of the extracellular Leucine-Rich Repeat superfamily. Expressed mainly in the nervous system, ELFN2 is a transmembrane protein that inhibits the activity of protein phosphatase 1 (PP1) complexes. Mature human ELFN2 consists of a 375 aa extracellular domain (ECD), a 21 aa transmembrane segment and a 402 aa cytoplasmic tail. The ECD includes one fibronectin type-III domain, five leucine-rich repeats (LRR) and one LRR C-terminal (LRRCT) domain. Human ELFN2 shares 98% aa sequence identity with mouse and rat ELFN2. Expression of ELFN2 is quite restricted to the nervous system in which it is broadly expressed in the cortex in presumed glutamatergic neurons, in hippocampal pyramidal and granule cells, and in the striatum. These patterns are maintained in adults. Given the functions and discrete patterns of many known LRR family proteins it has been proposed that ELFN2 could provide the requisite specificity of cellular interactions to mediate a large number of selective connectivity decisions involved in neurite outgrowth, axon

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	guidance, fasciculation, and synapse formation. Mutations of ELFN2 have been reported in pancreatic cancer radiation resistance and stress fracture.
Predicted N Terminal	Asp23
Form	Lyophilized from a 0.2 μm filtered solution in PBS.
Bio-activity	Measured by its ability to inhibit neurite outgrowth of E16-E18 rat embryonic cortical neurons on a Laminin alpha 4 coated plate. Able to significantly inhibit neurite outgrowth when immobilized as a 3 μL droplet containing 300 ng of protein.
Molecular Mass	Predicted Molecular Mass: 43 kDa SDS-PAGE: 71-94 kDa, non-reducing conditions
Endotoxin	<0.1 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 500 μg/mL in PBS.

GENE INFORMATION

Gene Name	ELFN2 extracellular leucine-rich repeat and fibronectin type III domain containing 2 [Homo sapiens]

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Official Symbol	ELFN2
Synonyms	ELFN2; extracellular leucine-rich repeat and fibronectin type III domain containing 2; extracellular leucine rich repeat and fibronectin type III containing 2 , extracellular leucine rich repeat and fibronectin type III domain containing 2 , leucine rich repeat containing 62 , LRRC62, PPP1R29, protein phosphatase 1, regulatory subunit 29; protein phosphatase 1 regulatory subunit 29; dJ63G5.3; KIAA1904; leucine rich repeat containing 62; dJ63G5.3 (putative Leucine rich protein); leucine-rich repeat-containing protein 62; protein phosphatase 1, regulatory subunit 29; extracellular leucine-rich repeat and fibronectin type III containing 2; leucine-rich repeat and fibronectin type-III domain-containing protein 6; extracellular leucine-rich repeat and fibronectin type III domain-containing protein 2; LRRC62; PPP1R29;
Gene ID	114794
mRNA Refseq	NM_052906
Protein Refseq	NP_443138
UniProt ID	Q5R3F8

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA