Recombinant Human ELFN2 Fc Chimera

Catalog Number: 10643-EF

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human ELFN2 protein

Human ELFN2 (Asp23-Tyr397) Accession # Q5R3F8.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Asp23
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	69 kDa

SPECIFICATIONS

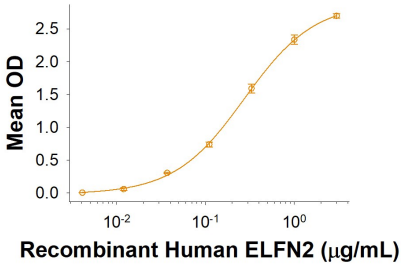
SDS-PAGE	97-112 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human mGluR7 Protein (Catalog # 9530-UR) is coated at 1 µg/mL, 100 µL/well, Recombinant Human ELFN2 Fc Chimera binds with an ED_{50} of 0.15-0.75 µg/mL.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

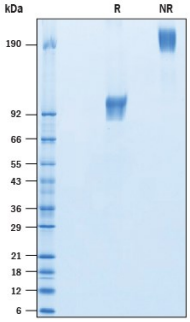
DATA

Binding Activity



Recombinant Human ELFN2 Fc Chimera Protein Binding Activity. When Recombinant Human mGluR7 Protein (Catalog # 9530-UR) is coated at 1 µg/mL, 100 µL/well, Recombinant Human ELFN2 Fc Chimera binds with an ED_{50} of 0.15-0.75 µg/mL.

SDS-PAGE



Recombinant Human ELFN2 Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Human ELFN2 Fc Chimera Protein (Catalog # 10643-EF) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 97-112 kDa and 194-224 kDa, respectively.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Recombinant Human ELFN2 Fc Chimera

Catalog Number: 10643-EF

BACKGROUND

Extracellular leucine-rich repeat and fibronectin type III domain-containing protein 2 (ELFN2), also known as protein phosphatase 1 regulatory subunit 29 (PPP1R29), is a member of the extracellular leucine-rich repeat (LRR) superfamily (1). Human ELFN2 consists of an extracellular domain (ECD) containing five LRR domains, one LRR C-terminal (LRRCT) domain and an FN3 domain, a transmembrane domain, and a cytoplasmic domain. Within the mature ECD, human ELFN2 shares 98% amino acid sequence identity with mouse and rat ELFN2. ELFN-2 is quite restricted to the nervous system in which it is broadly expressed in the cortex, presumed glutamatergic neurons, hippocampus, pyramidal and granule cells, and in the striatum. It has been proposed that ELFN-2 could provide the requisite specificity of cellular interactions to mediate a large number of selective connectivity decisions thereby involved in neurite outgrowth, axon guidance, fasciculation, and synapse formation (2). ELFN2 has been identified as a novel postsynaptic adhesion molecule expressed throughout the brain (3). Mutations of ELFN2 have been reported in pancreatic cancer radiation resistance (4) and stress fracture (5).

References:

1. Liu, C. *et al.* (2018) Mol. Ther. **26**:2267.
2. Dolan, J. *et al.* (2007) BMC Genomics **8**:320.
3. Dunn, H.A. *et al.* (2019) Mol. Psychiatry **24**:1902.
4. Friedman E. *et al.* (2014) Genet. Res. (Camb) **96**:e004.
5. Souchek L.L. *et al.* (2014) Br. J. Cancer **111**:1139.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449