Recombinant Human IGSF21 His-tag

Catalog Number: 10330-S2

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human IGSF21 protein Tyr25-Thr455, with a C-terminal 6-His tag Accession # Q96ID5.1
N-terminal Sequence Analysis	Tyr25
Predicted Molecular Mass	49 kDa

SPECIFICATIONS

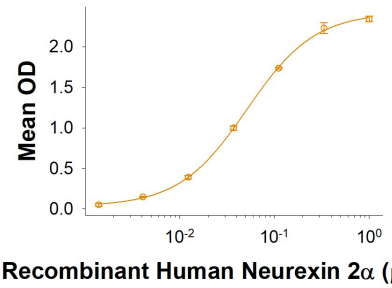
SDS-PAGE	61-68 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human IGSF21 His-tag (Catalog # 10330-S2) is immobilized at 1 µg/mL (100 µL/well), it binds to Recombinant Human Neurexin 2α Fc Chimera (Catalog # 6636-NX) with an ED_{50} of 20-120 ng/mL.
Endotoxin Level	<0.10 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.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/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.

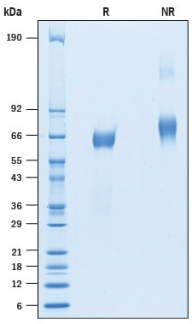
DATA

Binding Activity



When Recombinant IGSF21 His-tag (Catalog # 10330-S2) is immobilized at 1 µg/mL (100 µL/well), Recombinant Human Neurexin 2 alpha Isoform 2 Fc Chimera (Catalog # 6636-NX) binds with an ED_{50} of 20-120 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Human IGSF21 His-tag (Catalog # 10330-S2) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 61-68 kDa.

BACKGROUND

IGSF21 (Immunoglobulin superfamily member 21) is an approximately 60 kDa glycoprotein that is a member of the immunoglobulin superfamily. In mouse, two isoforms have been identified. The long isoform is predominantly expressed in the brain, while the short isoform ~35 kDa is expressed in other organs (1). IGSF21 is expressed at both embryonic and postnatal stages (1). Human IGSF21 is synthesized as a 467 amino acid (aa) protein that includes a 24 aa signal peptide. The mature protein, which contains two Ig-like domains, shares 95% aa sequence identity with mouse and rat IGSF21. IGSF21 selectively promotes inhibitory presynaptic differentiation through interaction with presynaptic neurexin2α that may represent an important mechanism of inhibitory synapse development in the brain (1). Thalamic IGSF21 expression is altered in response to FGF8 signaling (2). Genotypes of IGSF21 are also reported to influence the development of diabetic retinopathy (3).

References:

1. Tanabe, Y. *et al.* (2017) Nat. Commun. **8**:408.
2. Botella-Lopez, A. *et al.* (2019) Brain Struct. Funct. **224**:661.
3. Lin, X. *et al.* (2016) J. Gene Med. **18**:282.

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