Datasheet for ABIN5564357

Neuregulin 4 Protein (NRG4) (AA 1-53) (GST tag)

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Overview

Quantity:	10 µg
Target:	Neuregulin 4 (NRG4)
Protein Characteristics:	AA 1-53
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Neuregulin 4 protein is labelled with GST tag.
Application:	SDS-PAGE (SDS)

Product Details

Purpose:	Neuregulin-4 (human) (rec.)
Cross-Reactivity:	Human
Characteristics:	Human Neuregulin-4 (aa 1-53) is fused at the N-terminus to GST.
Purity:	>95 % (SDS-PAGE)
Endotoxin Level:	<0.01EU/µg purified protein (LAL test).
Biological Activity Comment:	Binds to the human receptor tyrosine-protein kinase ErbB4.

Target Details

Target:	Neuregulin 4 (NRG4)

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Target Details

Alternative Name:	Neuregulin-4 (NRG4 Products)
Background:	Nrg4 Neuregulin-4 (Nrg4) belongs to a small family of EGF-like (EGFL) domain-containing proteins that are synthesized as transmembrane precursors and undergo proteolytic cleavage. The EGF-like domain (aa 5-46) of Nrg4 (aa 1-53) directly binds to the receptors ErbB3 and 4. Nrg4 is a cold induced adipokine, highly expressed in adipose tissues and enriched in brown fat. It is increased during brown adipocyte differentiation and reduced in rodent and human obesity. It promotes neurite outgrowth and protects against diet-induced insulin resistance and hepatic steatosis through attenuating hepatic lipogenic signaling. This hepatic effect of Nrg4 is mediated by ErbB3 and ErbB4 signaling that negatively regulates de novo lipogenesis mediated by LXR and SREBP1c. This effect of Nrg4 on fatty liver and insulin resistance could lead to the development of Nrg4 as an effective therapeutic biological for the treatment of NAFLD and type 2 diabetes. GST-Nrg4 (aa 1-53) recombinant protein has been shown to mimic the effect of endogenous secreted Nrg4 on liver lipogenesis.
Molecular Weight:	~32kDa (SDS-PAGE)
UniProt:	Q8WWG1
Pathways:	RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Concentration:	0.1 mg/mL
Buffer:	Contains PBS.
Handling Advice:	After reconstitution, prepare aliquots and store at -20 °C. Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution. PBS containing at least 0.1 % BSA should be used for further dilutions.
Storage:	4 °C,-20 °C

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Handling

Storage Comment:	Short Term Storage: +4°C Long Term Storage: -20°C Use & Stability: Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
Expiry Date:	6 months