Active Recombinant Human NRG4 Protein, GST tagged

Cat. No. NRG4-15H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GST-Nrg4 (aa 1-53) recombinant protein has been shown to mimic the effect of endogenous secreted Nrg4 on liver lipogenesis.
Species	Human
Source	E.coli
ProteinLength	1-53 aa
Description	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.
Bio-activity	Binds to the human receptor tyrosine-protein kinase ErbB4.
Molecular Mass	~32 kDa (SDS-PAGE)

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Endotoxin	< 0.01 EU/μg purified protein (LAL test).
Purity	≥ 95% estimated by SDS-PAGE
Stability	Stable for at least 6 months after receipt when stored at -20 centigrade. Working aliquots are stable for up to 3 months when stored at -20 centigrade.
Storage	Short Term Storage: +4 centigrade Long Term Storage: -20 centigrade
Storage Buffer	Lyophilized. Contains PBS.
Concentration	0.1 mg/mL after reconstitution.
Shipping	BLUE ICE
Handling	After reconstitution, prepare aliquots and store at -20 centigrade. Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution. PBS containing at least 0.1% BSA should be used for further dilutions.
Reconstitution	Reconstitute with 100 μL sterile water.

GENE INFORMATION

Gene Name	NRG4 neuregulin 4 [Homo sapiens (human)]
Official Symbol	NRG4
Synonyms	NRG4; neuregulin 4; pro-neuregulin-4, membrane-bound isoform; HRG4; pro-NRG4; heregulin 4; DKFZp779N0541; DKFZp779N1944
Gene ID	145957

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mRNA Refseq	NM_138573
Protein Refseq	NP_612640
MIM	610894
UniProt ID	Q8WWG1

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