

Active Recombinant Mouse Nrg4 Protein, GST-tagged

Cat. No. Nrg4-01M Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Neuregulin-4 (aa 1-53) with a GST-tag at the N-terminus was expressed in E. coli.
Species	Mouse
Source	E.coli
ProteinLength	1-53
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 mouse and human receptor tyrosine-protein kinase ErbB4.
Molecular Mass	~32 kDa

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Endotoxin	< 0.01 EU/μg purified protein (LAL test).
Purity	≥ 95% 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
Concentration	0.1 mg/mL after reconstitution.
Storage Buffer	Lyophilized. Contains PBS.
Reconstitution	Reconstitute with 100 μL sterile water.
Shipping	Blue Ice.

GENE INFORMATION

Gene Name	Nrg4 neuregulin 4 [Mus musculus (house mouse)]
Official Symbol	Nrg4
Synonyms	Nrg4; neuregulin 4; AI552600; pro-neuregulin-4, membrane-bound isoform; pro-NRG4
Gene ID	83961
mRNA Refseq	NM_032002

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Protein Refseq	NP_114391
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UniProt ID	Q9WTX4
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