

## Active Recombinant Mouse Nrg4 Protein, GST-tagged

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

### SPECIFICATION

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

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<b>Endotoxin</b>	< 0.01 EU/μg purified protein (LAL test).
<b>Purity</b>	≥ 95% by SDS-PAGE
<b>Stability</b>	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.
<b>Storage</b>	Short Term Storage: +4 centigrade Long Term Storage: -20 centigrade
<b>Concentration</b>	0.1 mg/mL after reconstitution.
<b>Storage Buffer</b>	Lyophilized. Contains PBS.
<b>Reconstitution</b>	Reconstitute with 100 μL sterile water.
<b>Shipping</b>	Blue Ice.

## GENE INFORMATION

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

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**Protein Refseq** NP\_114391

**UniProt ID** Q9WTX4

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