Technical Data Sheet

Recombinant human/mouse NRG-1 protein

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Lot Specific Information

Lot Number: **Lot Specific***

Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Shelf Life

This product has a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended.

Product Information

Catalog Number:	**RP062**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Maintenance of pluripotency in iPSC
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in sterile-filtered water at >50 µg/ml. Once reconstituted, store in single-use aliquots to avoid freeze-thaw cycles. Store reconstituted protein at -20 °C to -80 °C for a maximum of 12 months or until the expiry date if sooner.
Sterility:	Sterile
Production:	Microbial. Expressed in E. coli
Molecular Weight:	7.5 kDa
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant human/mouse NRG-1 protein (neuregulin 1) is a member of the neuregulin family (NRG 1–4) and consists of the β isoform of the bioactive EGF-like domain of NRG-1, the best-studied family member, whose alternative splicing and promoter usage generate six protein types (I–VI) and at least 31 isoforms with distinct tissue distribution, potency, receptor specificity and biological function. Both α and β EGF-like domain isoforms are ligands for the receptors ErbB3 (HER3) and ErbB4 (HER4), but the β isoform binds ErbB4 with higher affinity than the α isoform. NRG-1 plays an essential role in cardiac and neuronal development and is implicated in disorders such as schizophrenia and in numerous cancers, including breast cancer, where it promotes the proliferation and migration of cancer cells. In cell culture, NRG-1 is frequently used in maintenance media for human pluripotent stem cells and other cell types, making recombinant NRG-1 a valuable reagent for stem cell, cardiac and neuroscience research. This protein is optimized for in vivo and functional applications: low-endotoxin, tag-free, and carrier-free, supporting reproducible performance in demanding preclinical and bioactivity studies. A GMP-grade version of this protein is available for cell and gene therapy manufacturing. Contact us at customerservice@bioxcell.com for details. Species reactivity: human. Species similarity: mouse - 98%, rat - 83%, bovine - 100%, porcine - 100%.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Store lyophilized protein between -20 °C and -80 °C until the date of expiry. Avoid freeze-thaw cycles

Conditions: For research use only. Not for use in diagnostic or therapeutic

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