

Store at
-20°C

Human NRG1- β 1 Recombinant Protein

Cell Signaling
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#26941

10 μ g

New 03/21

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For Research Use Only. Not For Use In Diagnostic Procedures.

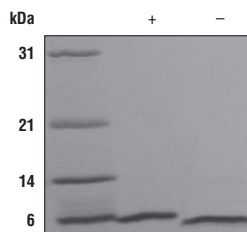
Background: Neuregulin 1 (NRG1), a member of the EGF family, is involved in heart, mammary, and nervous system development (1). NRG1 is expressed by mammary epithelial, vascular endothelial, and neuronal cells (2,3). At least 15 NRG1 splice variants are known (1). These variants differ in EGF domains (α or β variants), amino-terminal splicing sites, and in the incorporation of exons encoding integral membrane regions (1). NRG1 can induce or inhibit the proliferation of cells derived from breast cancer. The differences in effects of NRG1 appear to depend on splice variation and interaction with receptor(s) (2). NRG1 binds to ErbB3/HER3 or ErbB4/HER4. Binding induces dimerization with ErbB2/HER2. The Akt, Erk1/2, and Erk5 pathways have been shown to participate in NRG1 activated signaling (4,5). NRG1 appears to have roles in schizophrenia and breast cancer (1,4,6).

Molecular Weight: 7.6 kDa

Endotoxin: Endotoxin levels are \leq 1 EU / 1 μ g hNRG1- β 1.

Purity: \geq 95% purity was determined by SDS-PAGE.

Source/Purification: Recombinant human NRG1- β 1 was expressed in *E. coli* and is supplied in a lyophilized form.



The purity of Human NRG1- β 1 Recombinant Protein was determined by SDS-PAGE of 1 μ g reduced (+) and non-reduced (-) recombinant hNRG1- β 1 and staining with Coomassie Blue.

Storage: Human NRG1- β 1 Recombinant Protein is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/ml which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

Background References:

- (1) Falls, D.L. (2003) *Exp Cell Res* 284, 14-30.
- (2) Chua, Y.L. et al. (2009) *Oncogene* 28, 4041-52.
- (3) Kalinowski, A. et al. (2010) *FASEB J* 24, 2567-75.
- (4) Montero, J.C. et al. (2008) *Clin Cancer Res* 14, 3237-41.
- (5) Grossmann, K.S. et al. (2009) *Proc Natl Acad Sci U S A* 106, 16704-9.
- (6) Mei, L. and Xiong, W.C. (2008) *Nat Rev Neurosci* 9, 437-52.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.