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# NRG3 Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM50012

#### **Basic Information**

#### Catalog No.

RM50012

#### Category

Cell Lysate

#### **Parental Cell line**

293T

#### Genotype

Knockout

#### **Gene Information**

#### **Gene Symbol**

NRG3

#### **Species**

Human

## Gene ID

10718

#### **Swiss Prot**

P56975

#### **Synonyms**

HRG3; pro-NRG3; Neuregulin-3 (NRG3)

#### **Contact**

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## **Background**

This gene is a member of the neuregulin gene family. This gene family encodes ligands for the transmembrane tyrosine kinase receptors ERBB3 and ERBB4 - members of the epidermal growth factor receptor family. Ligand binding activates intracellular signaling cascades and the induction of cellular responses including proliferation, migration, differentiation, and survival or apoptosis. This gene encodes neuregulin 3 (NRG3). NRG3 has been shown to activate the tyrosine phosphorylation of its cognate receptor, ERBB4, and is thought to influence neuroblast proliferation, migration and differentiation by signalling through ERBB4. NRG3 also promotes mammary differentiation during embryogenesis. Linkage studies have implicated this gene as a susceptibility locus for schizophrenia and schizoaffective disorder. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript variants have been described but their biological validity has not been verified.

#### **Product Information**

#### Description

NRG3 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology. Allele-1:82bp deletion in exon3

Allele-2:83bp deletion in exon3

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

### **Packaging**

1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping Conditions Amount  $4^{\circ}$ C  $50\mu$ L,  $2\mu$ g/ $\mu$ L.

#### Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

#### **Protocol**

To be used as WB control. Lysate is supplied in  $1\times$  SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

# Sequencing data

WT ATATTCCACAGAG\*\*\*\*\*\*\*\*\*\*\*\*TGACCGGATCCCAT
Mut ATATTCCACAGAG\*\*\*Deletion\*\*\*TGACCGGATCCCAT
Allele-1: 82bp deletion in exon3

WT CATATTCCACAGA\*\*\*\*\*\*\*\*\*TGACCGGATCCCAT
Mut CATATTCCACAGA\*\*\*Deletion\*\*\*TGACCGGATCCCAT
Allele-2: 83bp deletion in exon3

Genome sequence analysis of PCR products from parental (WT) and NRG3 knockout (KO) 293T cells, using sanger sequencing.