

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant HRG1-β1, Human

Catalog Number: BK0076-10μg

Source: Escherichia coli.

Quantity: 10μg

Description:

Heregulin1-Beta1(HRG1-Beta1) is one of the isoforms encoded by Neuregulin (NRG) genes. NRGs are synthesized as large transmembrane precursor proteins, and the NRG family has 4 members and 26 isoforms. These isoforms provide large diversities, including different tissue distribution, variable potencies, and different biological functions. HRG1-β1 belongs to Type I HRG1, and is expressed in neural tissue, respiratory epithelia, and heart. In vivo, HRG1 binds and activates both ErbB3 and ErbB4, the transmembrane receptor tyrosine kinase, and is involved in the proliferation, differentiation, and survival of cells. Aberrantly produced HRG1 could be used in the constitute activation of the ErbB receptors; therefore, the upregulation of HRG1 contributes to the development of tumors, including breast cancer. Recombinant human Heregulin1-Beta1(HRG1-Beta1) produced in E.coli is a single non-glycosylated polypeptide chain containing 66 amino acids. A fully biologically active molecule, rh HRG1-Beta1 has a molecular mass of 7.6 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Molecular Weight:

7.6 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE analysis.

Biological Activity:

ED50 < 1 ng/mL, measured by a cell proliferation assay using MCF-7 cells, corresponding to a specific

activity of > 1 × 10⁶ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MSHLVKCAEKEKTFCVNGGECFMVKDLS-
NPSRYLCKCPNEFT-
GDRCQNYVMASFYKHLGIEFMEAE

Endotoxin:

< 0.2 EU/μg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μg/mL.

Storage:

Lyophilized recombinant human Heregulin1-Beta1(HRG1-Beta1) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhHRG1-Beta1 should be stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

Usage:

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