



[Go to Product page](#)

Datasheet for ABIN2667430  
**Heregulin beta 1 Protein (AA 177-241)**

### Overview

Quantity:	50 µg
Target:	Heregulin beta 1
Protein Characteristics:	AA 177-241
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Flow Cytometry (FACS)

### Product Details

Purity:	>98 % , as determined by Coomassie stained SDS-PAGE.
Endotoxin Level:	Less than 0.1 ng per µg of protein.

### Target Details

Target:	Heregulin beta 1
Alternative Name:	Heregulin-Beta1 ( <a href="#">Heregulin beta 1 Products</a> )
Background:	Heregulin, also named neuregulin-1 type I, is a family of growth factors that act as ligands for the epidermal growth factor receptors, including ERBB3 and ERBB4. Heregulins regulate survival, proliferation, and differentiation of the cells during development and wound healing. Heregulin-β1 is one of the Heregulin isoforms derived from alternative splicing. Binding of Heregulin-β1 to receptor tyrosine kinases ERBB3 or ERBB4 results in the recruitment and

## Target Details

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activation of ERBB2, subsequently transducing signaling cascades through the mitogen-activated protein kinase (MAPK) and phosphatidylinositol-3 kinase (PI3K) pathways. It has been suggested that heregulin- $\beta$ 1 participates in the tumorigenesis and metastasis of breast cancer, promoting proliferation, migration, and invasion of breast cancer cells.

**Molecular Weight:** The 65 amino acid recombinant protein has a predicted molecular mass of approximately 7.5 kDa. The predicted N-terminal acid is Ser.

## Application Details

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**Application Notes:** Optimal working dilution should be determined by the investigator.

**Comment:** Biological activity: ED<sub>50</sub>  $\leq$  0.5 ng/ml, corresponding to a specific activity of  $\geq 2.0 \times 10^6$  units/mg, as measured by its ability to stimulate proliferation of human MCF7 cells in a dose dependent manner.

**Restrictions:** For Research Use only

## Handling

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**Format:** Lyophilized

**Reconstitution:** For maximum results, quick spin vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/mL. Do not vortex. It is recommended to further dilute in a buffer, such as 5 % Trehalose, and store working aliquots at -20 °C to -80 °C.

**Buffer:** Lyophilized, carrier-free.

**Handling Advice:** Avoid repeated freeze/thaw cycles.

**Storage:** -20 °C

**Storage Comment:** Unopened vial can be stored at -20°C or -70°C.