

# Recombinant Human Histidine-Rich Glycoprotein

**Cat. No.** HRG-332H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant human Heregulin (HRG) protein was expressed in <i>E. coli</i> . MW= 44kDa (full length) and 30kDa (extracellular domain).
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	Heregulin (HRG) is a glycoprotein of 44kDa which binds to c-erbB-3 and c-erbB-4 receptors with low and high affinities, respectively. Heregulins constitute a family of mosaic proteins comprising of at least 12 members. They contain certain recognizable domains which include: an amino terminal (N-ter) region; an immunoglobulinlike motif (Ig); a glycosylated spacer sequence (glyco); an EGF-like motif (EGF), which is subdivided into $\alpha$ and $\beta$ isoforms; a juxtamembrane region subdivided into isoforms 1-3; a hydrophobic transmembrane domain (TM); a common cytoplasmic tail (Cyto); and a variable-length cytoplasmic tail (a-c). Using this nomenclature, several isoforms of HRG are designated as HRG- $\alpha$ 1, HRG- $\alpha$ 2, HRG- $\alpha$ 3, HRG- $\beta$ 1, HRG- $\beta$ 2, HRG- $\beta$ 3, HRG- $\alpha$ 2b, etc.
<b>Comments</b>	In SDS-PAGE, the purified recombinant Heregulin $\alpha$ 1 protein appears as a single band at 30kDa. Heregulin $\alpha$ 1 protein modulates the proliferation and differentiation of cultured mammary cells and stimulates the tyrosine kinase activity of ErbBs.
<b>Applications And Suggested Dilutions</b>	Western Blotting, Stimulation of Tyrosine Kinase Activity of Erbs (Protein at 5nM); Cell Proliferation and Differentiation (Protein at 5nM: dilute 5 $\mu$ g of stock protein to 30ml of

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	culture medium). The optimal dilution for a specific application should be determined by the investigator.
<b>Positive Control</b>	T47-D breast cancer cells.
<b>Supplied As</b>	Purified Heregulin α1 is packaged in physiological saline, pH 7.4, with 0.2% BSA. Note that this product is supplied without Sodium azide or any other preservative.
<b>Characterization</b>	On SDS-PAGE commassie blue stained gel, the purified recombinant protein shows a band at 45 kDa.
<b>Storage And Stability</b>	Store vial at -20°C to -70°C. When stored at the recommended temperature, this protein is stable for 24 months.
<b>Full Length</b>	Full L.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">HRG histidine-rich glycoprotein [ Homo sapiens ]</a>
<b>Synonyms</b>	HRG; histidine-rich glycoprotein; HPRG; HRGP; DKFZp779H1622; thrombophilia due to elevated HRG; histidine-proline rich glycoprotein; Histidine-proline-rich glycoprotein
<b>Gene ID</b>	<a href="#">3273</a>
<b>mRNA Refseq</b>	<a href="#">NM_000412</a>
<b>Protein Refseq</b>	<a href="#">NP_000403</a>
<b>UniProt ID</b>	<a href="#">P04196</a>

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



<b>Chromosome Location</b>	3q27
<b>MIM</b>	142640
<b>Pathway</b>	Hemostasis
<b>Function</b>	cysteine-type endopeptidase inhibitor activity; heparin binding; serine-type endopeptidase inhibitor activity

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA