

Recombinant Human Histidine-Rich Glycoprotein

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

SPECIFICATION

Product Overview	Recombinant human Heregulin (HRG) protein was expressed in <i>E. coli</i> . MW= 44kDa (full length) and 30kDa (extracellular domain).
Species	Human
Source	E.coli
Description	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 α and β 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- α 1, HRG- α 2, HRG- α 3, HRG- β 1, HRG- β 2, HRG- β 3, HRG- α 2b, etc.
Comments	In SDS-PAGE, the purified recombinant Heregulin α 1 protein appears as a single band at 30kDa. Heregulin α 1 protein modulates the proliferation and differentiation of cultured mammary cells and stimulates the tyrosine kinase activity of ErbBs.
Applications And Suggested Dilutions	Western Blotting, Stimulation of Tyrosine Kinase Activity of Erbs (Protein at 5nM); Cell Proliferation and Differentiation (Protein at 5nM: dilute 5 μ g of stock protein to 30ml of

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	culture medium). The optimal dilution for a specific application should be determined by the investigator.
Positive Control	T47-D breast cancer cells.
Supplied As	Purified Heregulin $\alpha 1$ 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.
Characterization	On SDS-PAGE commassie blue stained gel, the purified recombinant protein shows a band at 45 kDa.
Storage And Stability	Store vial at -20°C to -70°C. When stored at the recommended temperature, this protein is stable for 24 months.
Full Length	Full L.

GENE INFORMATION

Gene Name	HRG histidine-rich glycoprotein [Homo sapiens]
Synonyms	HRG; histidine-rich glycoprotein; HPRG; HRGP; DKFZp779H1622; thrombophilia due to elevated HRG; histidine-proline rich glycoprotein; Histidine-proline-rich glycoprotein
Gene ID	3273
mRNA Refseq	NM_000412
Protein Refseq	NP_000403
UniProt ID	P04196

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

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