Background: Heregulin (HRG), also called neuregulin (HRG1), neu differentiation factor (NDF) or glial growth factor-2 (GGF-2), is a soluble growth factor synthesized as a transmembrane precursor molecule. Metalloproteinases and other proteases catalyze the cleavage of its extracellular domain which is then released and functions as a ligand for ErbB3 and ErbB4 receptor tyrosine kinase. The signaling pathways of HRG-ErbB3/ErbB4 are involved in regulation of cell proliferation, differentiation, invasion, and survival of both normal and malignant tissues (1,2). Abnormality of HRG-ErbB signaling leads to development of a variety of human diseases.

HRG family has four isoforms including HRG-1, -2, -3 and -4, which are derived from alternative exon splicing. Moreover, they showed various tissue expression and biological activities (3).

Specificity/Sensitivity: Heregulin Antibody detects endogenous levels of total heregulin proteins. The antibody does not cross-react with other family members.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His494 of human heregulin. Antibodies are purified by protein A and peptide affinity chromatography.

Background References: