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Monoclonal Antibody to Heregulin (NDF/GGF/Neuregulin) - Purified

Alternate names: Acetylcholine receptor-inducing activity, Breast cancer cell differentiation factor p45, GGF, Glial growth factor, HGL, HRG, HRGA, Heregulin, NDF, NRG1, Neu differentiation factor, Pro-neuregulin-1 membrane-bound isoform, SMDF, Sensory and motor neuron-derived factor

Catalog No.: AM05303PU-N

Quantity: 0.1 mg

Concentration: 1 mg/ml

Background: HRG/NDF exists in several isoforms, which are classified in two groups alpha and beta.

Uniprot ID: Q02297

NCBI: NP_001153467.1

GeneID: 3084

Host / Isotype: Mouse / IgG2a

Recommended Isotype Controls: AM03096PU-N

Clone: 7D5

Immunogen: Hybridoma produced by the fusion of spelocytes from BALB/c mice immunized with recombinant extracellular domain of rat NDF protein coupled to KLH and mouse myeloma NSO cells.
Genename: NRG1

Format:
State: Liquid purified IgG fraction.
Purification: Protein A/G Chromatography
Buffer System: PBS containing 0.08% Sodium Azide as preservative.

Applications:
Western Blot (1-5 µg/ml).
Immunoprecipitation (2 µg/mg of protein lysate).
Immunohistochemistry on Frozen and Formalin/Paraffin Sections (1/20-1/40).
Positive Control: HRGa1, HRGb1 recombinant protein or MDA-MB-231 cells; prostate carcinoma.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Recognizes a glycoprotein of 44kDa, identified as heregulin (HRG) or neu differentiation factor (NDF) which binds to c-erbB-3 and c-erbB-4 receptors with low and high affinities, respectively.
This antibody is directed against the ***Extracellular domain*** of NDF/HRG and is highly specific. It shows no cross-reaction with EGF and reacts with both alpha- and beta-isoforms of NDF/HRG, suggesting that its epitope is outside the EGF-domain.
This antibody **does not** inhibit the binding of HRG to ErbB receptors and is excellent for multiple applications.
Species: Human, Rat and Mouse.
Other species not tested.

Storage:

Upon receipt, store undiluted (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Graus-Porta D, Beerli RR, Hynes NE. Single-chain antibody-mediated intracellular retention of ErbB-2 impairs Neu differentiation factor and epidermal growth factor signaling. Mol Cell Biol. 1995 Mar;15(3):1182-91. PubMed PMID: 7532277.
2. Devarajan K, et al. (1996) ErbB-2 is a common auxiliary subunit of NDF- and EGF-receptors: implications for breast cancer. EMBO. J. 15 : 254-264.
3. Marte BM, Graus-Porta D, Jeschke M, Fabbro D, Hynes NE, Taverna D. NDF/heregulin activates MAP kinase and p70/p85 S6 kinase during proliferation or differentiation of mammary epithelial cells. Oncogene. 1995 Jan 5;10(1):167-75. PubMed PMID: 7824269.
4. Beerli RR, Graus-Porta D, Woods-Cook K, Chen X, Yarden Y, Hynes NE. Neu differentiation factor activation of ErbB-3 and ErbB-4 is cell specific and displays a differential requirement for ErbB-2. Mol Cell Biol. 1995 Dec;15(12):6496-505. PubMed PMID: 8524214.

Pictures:

Figure 1. Immunohistochemical staining using HRG antibody (AM05303PU-N) on formalin fixed, paraffin embedded human prostate carcinoma tissue sections.