

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Amphiregulin in direct ELISAs and Western blots. Does not cross-react with recombinant human (rh) Amphiregulin, rhEGF, rhHB-EGF, rhNRG-1α, rhNRG-1-β1, rhTGF-α, recombinant mouse (rm) BTC, rmEpigen, or rmEpiregulin.
Source	Monoclonal Rat IgG _{2A} Clone # 206220
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse Amphiregulin Ser94-Lys191 Accession # P31955
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Amphiregulin (AR), also known as Schwannoma-derived growth factor (SDGF), is a member of the epidermal growth factor (EGF) family of growth factors which includes, AR, EGF, transforming growth factor-α (TGF-α), heparin binding EGF-like growth factor (HB-EGF), betacellulin (BTC), epiregulin, and the neuregulins-1 through -4. All EGF family members are synthesized as type I transmembrane precursors and contain one or several EGF domains in their extracellular region. The bioactive form of the proteins is released by proteolytic cleavage. The ErbB family of receptors that includes ErbB1 - B4, mediates the biological activities of the EGF family ligands. AR was originally isolated from the conditioned media of PMA-treated MCF-7 human breast carcinoma cell line. AR mRNA expression can be detected in numerous carcinoma cell lines and in the epithelial cells of various human tissues including colon, stomach, breast, ovary and kidney. AR stimulates the proliferation of keratinocytes, mammary epithelial cells, fibroblasts, astrocytes and glial cells. AR is also a growth inhibitor for certain tumor cells. The gene for AR has been mapped to human chromosome 4q13-q21 and mouse chromosome 5. Human and mouse AR cDNA encode 252 and 248 amino acid residue type I membrane proteins, respectively. The two proteins share approximately 69% sequence identity. Mouse AR also shares 81% amino acid sequence homology with rat AR. Several secreted isoforms of AR that vary in length and/or glycosylation level can be found in cell conditioned media. The 98 amino acid residue recombinant AR has better receptor binding and biological activity than the C-terminal truncated forms of the protein.

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