Mouse Epiregulin Alexa Fluor® 700-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 189611

Catalog Number: FAB1068N

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Epiregulin in ELISAs. In direct ELISAs, 100% cross-reactivity with recombinant human Epiregulin is observed, but no cross-reactivity with recombinant mouse (rm) Epigen, recombinant human (rh) TGF-α, rhAmphiregulin, r
Source	Monoclonal Rat IgG_{2A} Clone # 189611
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse Epiregulin Val56-Leu101 Accession # Q61521
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	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

Epiregulin is a member of the EGF family of growth factors which includes, among others, epidermal growth factor (EGF), transforming growth factor (TGF)-α, amphiregulin (ARG), HB (heparin-binding)-EGF, betacellulin, and the various heregulins. They are all synthesized as transmembrane precursors and converted to soluble forms by proteolytic cleavage. Epiregulin was originally purified from the mouse fibroblast-derived tumor cell line NIH3T3/T7 (1). The mouse Epiregulin cDNA encodes for a 162 amino acid (aa) transmembrane precursor, with the mature soluble form comprising aa 56-101 (2). The mode of action of Epiregulin is similar to other EGF family members in that it binds to and activates the tyrosine-kinase, ErbB-family receptors (ErbB1 through B4) (3). Although it stimulates phosphorylation of all four receptors, it appears to interact primarily with ErbB1 and ErbB4. Epiregulin has the broadest specificity of the EGF-like ligands but seems to preferentially activate heterodimeric receptor complexes (4). Epiregulin exhibits a variety of biological effects. It was originally shown to both inhibit growth of several epithelial tumor cells and stimulate growth of fibroblasts and other types of cells (1). Epiregulin expression is upregulated in a number of carcinoma cell lines. It has also been shown to be an autocrine growth factor in human epidermal keratinocytes (5). Epiregulin has also been shown to play a role in the early steps of pregnancy, regulating attachment of the blastocyst to the uterine epithelium during the implantation process (6).

PRODUCT SPECIFIC NOTICES

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