Human EGF Neutralizing (D8A1) Rabbit mAb

✓ 100 µg

Species Cross-Reactivity: H

Description: Neutralizing antibodies can be used to inhibit normal biological function through their binding to biological molecules. These reagents can be used to determine the effects that a particular molecule has in biological systems. Human EGF Neutralizing (D8A1) Rabbit mAb has been shown to neutralize the EGF-induced proliferation of MCF 10A cells in vitro with an ND₅₀ in the range of 200-700 ng/ml.

Background: EGF is produced by epithelial cells, fibroblasts, and many other cell types (1,2). Low molecular weight soluble EGF is generated through proteolysis of a larger ~130,000 kDa transmembrane precursor (1,2). Both soluble and membrane forms of EGF are active (2). EGF induces proliferation, differentiation, and survival of many cell types including tumor-derived cells (1-3). There are multiple members of the EGF family and multiple members of the HER/ErbB EGF receptor family. EGF binds to HER1/ErbB1 and induces homo- or heterodimerization with other HER/ErbB family members, resulting in signaling through the MAPK, PI3K/Akt, and Stat5 pathways (1). Research studies have implicated EGF, EGF family members, EGF receptors, and their signaling pathways in many cancers (1,2).

Endotoxin: Less than 0.1 EU/µg of antibody.

Specificity/Sensitivity: Human EGF Neutralizing (D8A1) Rabbit mAb binds to human EGF and neutralizes its effects in an MCF 10A cell proliferation assay. This antibody does not cross-react with human betacellulin or human TGF-α.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a recombinant human EGF protein.

Directions for Use: CST recommends incubation of the neutralizing antibody with the intended target for 1 hr at 37°C before addition to the experiment at an optimal concentration determined by the user.

Formulation: Lyophilized from a 0.2 µm filtered solution in 10 mM HEPES with trehalose.

Reconstitution: Add sterile 10 mM HEPES pH 7.0 to a final concentration of greater than 50 µg/ml. Solubilize for 20 min at room temperature with occasional gentle vortexing.

Storage: Store Lyophilized material at -20°C. After reconstitution, recommended storage at 4°C for 1 month or -20°C for 6 months. Avoid repeated freeze/thawing.

Background References:

For Research Use Only. Not For Use In Diagnostic Procedures.