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## Product Datasheet

### EGFR antibody (orb1152477)

**Description**

Human monoclonal antibody to EGFR

**Species/Host**

Human

**Reactivity**

Human

**Conjugation**

Unconjugated

**Tested Applications**

ELISA, FC, WB

**Immunogen**

The original monoclonal antibody was generated by immunizing HuMAb mice with alternating A431 cells and purified EGFR administration.

**Target**

EGFR

**Preservatives**

PBS with 0.02% Proclin 300.

**Concentration**

1 mg/ml

**Storage**

Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Note**

For research use only

**Application notes**

This antibody blocks the binding of EGF and TGF- $\alpha$  to the EGFR. At saturating concentrations, 2F8 completely blocked EGF-R signaling and inhibited the in vitro proliferation of EGF-R-overexpressing A431 cells. At much lower concentrations, associated with low receptor occupancy, 2F8 induced efficient Ab-dependent cell-mediated cytotoxicity (ADCC) in vitro. In vivo studies showed potent antitumor effects in models with A431 tumor xenografts in athymic mice. Flow cytometry was used to analyze the binding of mAb 2F8 to EGFR overexpressing A431 cells. mAb 2F8 was found to bind to membrane-associated EGF-R with an EC50 of approximately 1  $\mu$ g/ml (7 nM). The ability of mAb 2F8 to block ligand-induced receptor phosphorylation was determined using immunoblotting. ELISA was used to determine whether mAb 2F8 had a functional C1q binding site (Bleeker et al., 2004). Phase I/II clinical trials and pharmacokinetic studies in patients with advanced squamous cell carcinoma of the head and neck revealed that 2F8/HuMax-EGFR can be safely administered in doses up to 8 mg/kg (Bastholt et al., 2007) Antibody 2F8 binds the domain III of the EGFR and locks it into a very compact and inactive conformation. Biochemical analyses showed bivalent binding