# Technical Data Sheet

## InVivoMAb anti-mouse EGFR (domain I)

**Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.**

## Lot Specific Information

**Lot Number:** **Lot Specific***
**Volume:** **Lot Specific***
**Concentration:** **Lot Specific* (generally 4 to 11 mg/ml) ***
**Total Protein:** **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

## Product Information

| | |
|---|---|
| **Catalog Number:** | **BE0465** |
| **Clone:** | **EMab-300** |
| **Isotype:** | Rat IgG1, κ |
| **Recommended Isotype Control(s):** | InVivoMAb rat IgG1 isotype control, anti-horseradish peroxidase |
| **Recommended Dilution Buffer:** | InVivoPure pH 7.0 Dilution Buffer |
| **Immunogen:** | mEGFR over-expressing LN229 cells |
| **Reported Applications:** | Flow cytometry<br>For details on *in vivo* applications, please contact technicalservice@bioxcell.com |
| **Formulation:** | PBS, pH 7.0<br>Contains no stabilizers or preservatives |
| **Endotoxin:** | ≤1EU/mg (≤0.001EU/μg)<br>Determined by LAL gel clotting assay |
| **Purity:** | ≥95%<br>Determined by SDS-PAGE |
| **Sterility:** | 0.2 μm filtered |
| **Production:** | Purified from cell culture supernatant in an animal-free facility |
| **Purification:** | Protein G |
| **RRID:** | |
| **Molecular Weight:** | 150 kDa |

## Description

The EMab-300 monoclonal antibody reacts with domain I of the mouse epidermal growth factor receptor (EGFR), also known as ERBB, ERBB1, and HER1. EGFR is a transmembrane glycoprotein and a member of the ErbB family of receptor protein tyrosine kinases (RTKs). The extracellular region of EGFR has four domains, wherein domains I and III contain the ligand-binding site. EGFR ligands include EGF, AREG, TGF-α, epiregulin (EREG), epigen, betacellulin, and heparin-binding EGF. Upon ligand binding, EGFR dimerizes, and its activation through the autophosphorylation of its cytoplasmic domain triggers several downstream signaling pathways, including RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLC-γ-PKC, and STATs, which help the cell respond accurately to extracellular signals. EGFR is expressed ubiquitously, and in various tissues, it plays critical roles in the developmental, physiological, and regenerative processes. EGFR's aberrant activation is a common feature of various malignancies. Using monoclonal antibodies to target the EGFR extracellular region has shown promising results in anti-cancer research, and currently approved therapeutic antibodies such as cetuximab, panitumumab, nimotuzumab, and necitumumab bind to EGFR's domain III, which, together with domain I, is well known to facilitate EGF-EGFR binding.

## Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out

of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

## Protocol Information

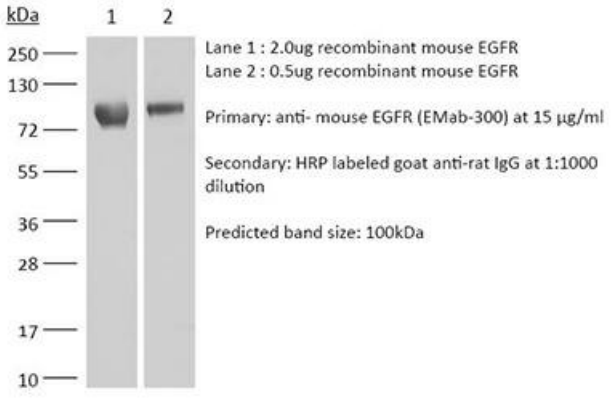
Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

## Application References

For a complete list of references, visit https://bioxcell.com/be0465?bxcs=9k1b3a#tab_references or scan the QR code below.

## Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail technicalservice@bioxcell.com.




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