

Technical Data Sheet

RecombiMAb anti-mouse EGFR (domain-II)



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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 Website Link: <https://bioxcell.com/recombimab-anti-mouse-egfr-domain-ii-cp114>

Product Information

Catalog Number: CP114
Clone: EMab-301-CP114
Isotype: Mouse IgG2a, κ
Recommended Isotype Control(s): RecombiMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: mouse EGFR overexpressing cells
Reported Applications: ELISA
Western Blot
For information on in-vivo applications, please contact (technicalservice@bioxcell.com)
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: ≤ 0.5 EU/mg (≤ 0.0005 EU/ μ g)
Determined by LAL assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: 0.2 μ m filtration
Production: Purified from mammalian cell supernatant in an animal-free facility
Purification: Protein A
Aggregation: $< 5\%$
Determined by SEC
RRID:
Molecular Weight: 150 kDa

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

The EMab-301-CP114 monoclonal antibody is a recombinant version of the original EMab-301 antibody. The variable domain sequences are identical but the constant region sequences have been switched from Rat IgGM, κ to Mouse IgG2a, κ . The EMab-301-CP114 antibody has an effector function competent Fc domain allowing for activation of Fc γ receptors (Fc γ Rs) to trigger antibody-dependent cellular cytotoxicity (ADCC), antibody-dependent cellular phagocytosis (ADCP),

complement-dependent cytotoxicity (CDC) and opsonization to promote target cell depletion. The mouse IgG2a isotype demonstrates strong effector functions due to potent interaction with mFcγRIV, which is functionally similar to the FcγRIIIa receptor involved in human ADCC. Species-matched chimeric antibodies result in less immunogenicity and formation of anti-drug antibodies (ADAs) than xenogenic antibodies in animal models. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. EMab-301-CP114 selectively binds extracellular domain II of mouse EGFR (epidermal growth factor receptor). Domain II is a critical segment of the receptor's extracellular region responsible for mediating receptor dimerization and activation upon ligand binding. Mouse EGFR (also known as ERBB, ERBB1, and HER1) is a transmembrane glycoprotein and a member of the ErbB family of receptor protein tyrosine kinases (RTKs). EGFR ligands include EGF, AREG, TGF- α , epiregulin (EREG), epigen, betacellulin, and heparin-binding EGF. Upon ligand binding, EGFR dimerizes and is activated through autophosphorylation of the cytoplasmic domain. EGFR activation 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 in various tissues and plays critical roles in developmental, physiological, and regenerative processes. The aberrant activation of EGFR is a common feature of various malignancies.

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/recombimab-anti-mouse-egfr-domain-ii-cp114?utm_source=cr9k1b#tab_references or scan the QR code below.



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