Technical Data Sheet

InVivoMAb anti-human/mouse amphiregulin (AREG)

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:	**BE0454**
Clone:	**AR37**
Isotype:	Mouse IgG1, λ
Recommended Isotype Control(s):	InVivoMAb polyclonal mouse IgG
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Human amphiregulin
Reported Applications:	*in vivo* blocking of amphiregulin (AREG) *in vitro* blocking of amphiregulin (AREG) Immunofluorescence Western blot ELISA
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/μg) Determined by LAL gel clotting assay
Purity:	≥95% 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 AR37 monoclonal antibody reacts with human and mouse amphiregulin (AREG), a member of the epidermal growth factor (EGF) family. AREG shows constitutive expression in many epithelial and mesenchymal cell types during developmental stages as well as homeostasis. AREG is also expressed by some leukocyte populations, such as mast cells, basophils, ILC2 cells, and a subset of tissue-resident CD4+ Tregs. After translation, the transmembrane AREG pro-protein is cleaved by TACE/ADAM17 protease to release the active, soluble form of AREG that acts as a ligand of the EGF receptor (EGFR). AREG's interaction with EGFR induces EGFR phosphorylation (stimulatory effects), and this AREG-EGFR signaling is involved in cell proliferation, migration, and differentiation. In preclinical studies, the anti-AREG antibodies, including AR37, are reported to offer prolonged survival and reduction in the growth of AREG-expressing ovarian, breast, and prostate cancer models. The AR37 antibody specifically targets the extracellular EGF domain and neutralizes AREG-mediated EGFR phosphorylation and downstream signaling. The AR37 antibody shows very weak binding affinity to human HB-EGF (~100-fold lower vs. human AREG), but it does not show any cross-reactivity with other EGF-like factors, including EGF, epiregulin (EREG), TGF alpha, epigen, and NRG1.

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/be0454?bxcs=9k1b3a#tab_references or scan the QR code below.

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