Technical Data Sheet

InVivoSIM anti-human EGFR (Panitumumab Biosimilar)

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:	**SIM0050**
Clone:	**Panitumumab**
Isotype:	Human IgG2, κ
Recommended Isotype Control(s):	RecombiMAb human IgG2 isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Human EGFR (ErbB1)
Reported Applications:	*in vivo* neutralization of human EGFR *in vitro* neutralization of human EGFR ELISA Western blot
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL gel clotting assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from cell culture supernatant in an animal-free facility
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

This biosimilar antibody uses the same variable regions as the therapeutic antibody Panitumumab, making it ideal for research use. Panitumumab is a fully humanized IgG2κ monoclonal antibody that reacts with the wild-type human epidermal growth factor receptor (EGFR) as well as its mutated form, EGFR variant III (EGFRvIII). EGFR is a member of the HER tyrosine kinase growth factor receptor family, and it binds to EGF family ligands, which sets off a number of signaling pathways that turn extracellular cues into the right responses from cells. EGFR binding with its known ligands, including EGF, TGF, AREG, EPGN, BTC, epiregulin (EREG), and heparin-binding EGF, triggers receptor homo- and/or heterodimerization, autophosphorylation, and recruitment of adapter proteins like GRB2, thereby activating complex downstream signaling

pathways including RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCγ-PKC, STAT modules, and NF-κB. EGFR directly phosphorylates RGS16 for coupling the EGFR signaling to GPCR signaling and also phosphorylates MUC1 for regulating SRC and beta-catenin signaling. EGFR is known to play critical roles in cellular proliferation, angiogenesis, and cell survival. Several studies have shown that agonist antibodies such as Panitumumab bind EGFR more strongly than EGFR's natural partners. Preclinical studies have shown that panitumumab binds to EGFR and stops ligand-induced receptor autophosphorylation and activation of receptor-associated kinases, thereby causing the inhibition of cell growth, induction of apoptosis, downregulation of the production of pro-inflammatory cytokines and vascular growth factors, and internalization of the EGFR. Studies with in vitro and in vivo experimental models have demonstrated that the neutralization of EGFR with Panitumumab leads to cell cycle arrest and inhibition of tumor growth.

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

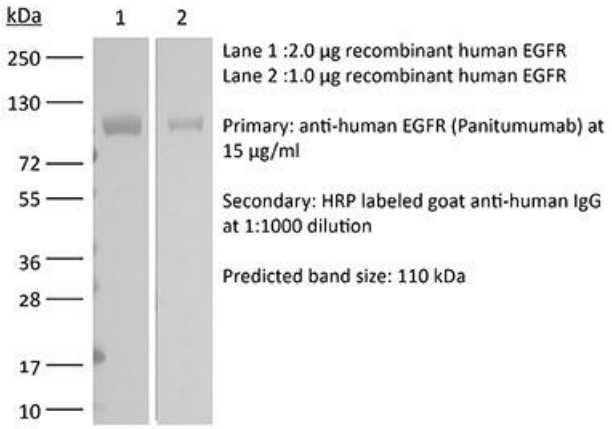
Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/sim0050?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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