Technical Data Sheet

InVivoSIM anti-human TROP-2 (Sacituzumab 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:	**SIM0051**
Clone:	**Sacituzumab**
Isotype:	Human IgG1, κ
Recommended Isotype Control(s):	RecombiMAb human IgG1 (K214R/L234F/L235E/P331S) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	K214R
Immunogen:	Human TROP-2
Reported Applications:	*in vitro* functional assays *in vivo* functional assays Antibody-drug conjugate synthesis ELISA Western blot Flow cytometry
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 Sacituzumab, making it ideal for research use. Sacituzumab is a fully humanized IgG1κ monoclonal antibody that reacts with human trophoblastic cell surface antigen 2 (TROP-2), an antigen linked to cancer. TROP-2 is a cell surface receptor that spans the cellular membrane with an

extracellular, transmembrane, and intracellular domain, along with a cytoplasmic tail essential for signaling. The ligands of TROP-2 include claudin-1, claudin-7, cyclin D1, and potentially IGF-1. TROP-2 upregulates EpCAM-triggered cell signaling and requires RIP to regulate efficient growth and division of cancer cells. Several proteins, including RIP, TACE, γ-secretase, Presenilin 1 (PS-1) and PS-2, facilitate TROP-2's cleavage within the transmembrane domain, and this cleavage produces TROP-2 extracellular domain (ECD) and intracellular domain (ICD) fragments. TROP-2 is considered a cellular marker of trophoblastic stem cells, and this glycoprotein is known to transduce calcium signals. Normal epithelial cells express TROP-2 at a low level, while many tumors (such as glioblastoma, pancreatic carcinoma, and all breast cancer subtypes, especially triple-negative breast cancer) express it at a high level. The critical role of TROP-2 in multiple signaling pathways often links to the proliferation, invasion, and metastasis of tumors. The tumor cell-specific expression of TROP-2 makes it an ideal target for cancer immunotherapy. Several recent studies have used Sacituzumab-based antibody-drug conjugates (ADC), namely Sacituzumab Govitecan (IMMU-132) that contains Sacituzumab conjugated to SN-38 (the active metabolite of irinotecan), utilizing a pH hydrolysable linker CL2A for facilitating SN-38 release to the cancer cells in in vitro and in vivo preclinical studies.

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/sim0051?bxcs=9k1b3a#tab_references or scan the QR code below.

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