Technical Data Sheet

InVivoSIM anti-human amyloid beta (Donanemab 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:	**SIM0048**
Clone:	**Donanemab**
Isotype:	Human IgG1, κ
Recommended Isotype Control(s):	RecombiMAb human IgG1 isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Human APP
Reported Applications:	*in vivo* functional assays *in vitro* functional assays 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 non-therapeutic biosimilar antibody uses the same variable regions as the therapeutic antibody Donanemab, making it ideal for research use. Donanemab is a humanized IgG1κ anti-human APP antibody, and it specifically reacts with abeta 42 (Aβ42), a pyroglutamate form of Aβ that is aggregated in amyloid plaques during the pathogenesis of Alzheimer's disease (AD). Aβ42 results from an aberrant processing of amyloid-β protein precursor (APP or AβPP). The initial cleavage of APP is caused by either α- secretase or β-secretase (or BACE1). sAPPα and the α-C-terminal fragment (α-CTF or APP-C83) are produced by α-secretase cleavage of APP, whereas sAPPβ and the β-C-terminal fragment (β-CTF or APP-C99) are produced by β-secretase cleavage. γ-secretase further cleaves C83 and C99, yielding the P3 peptide and Aβ, respectively.

Depending on the location of the γ-secretase cleavage, Aβ can have a length of 37-43 amino acids in its peptide sequence. The two main Aβ species are Aβ42 and Aβ40. In early AD pathology, Aβ species play a critical role by seeding toxic oligomeric species with Aβ42 being more preferentially depositing in amyloid plaques than Aβ40. Donanemab specifically recognizes Aβ p3-42 (Aβ42) and it is reported to impede the progression of AD by clearing plaques through microglial-mediated phagocytosis in mice without causing microhemorrhages. Donanemab biosimilar antibodies are commonly used for in vitro and in vivo studies involving Alzheimer's disease and Down syndrome experimental models.

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/sim0048?bxcs=9k1b3a#tab_references or scan the QR code below.

Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com