## **Technical Data Sheet**



## InVivoSIM anti-human IL-12 p40 (Ustekinumab Biosimilar)

<u>Attention</u>: 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 <a href="https://bioxcell.com/terms-and-conditions">https://bioxcell.com/terms-and-conditions</a>.

## **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: SIM0020
Clone: Ustekinumab
Isotype: Human IgG1, κ

Recommended Isotype Control(s): RecombiMAb human IgG1 (D265A) isotype control, anti-hen egg lysozyme

**Recommended Dilution Buffer:** InVivoPure pH 7.0 Dilution Buffer

Mutations:K214R/E356D/M358LImmunogen:Human IL-12 p40Reported Applications:Functional assaysFormulation: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.

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**

This non-therapeutic biosimilar antibody uses the same variable regions from the therapeutic antibody Ustekinumab making it ideal for research use. This Ustekinumab biosimilar reacts with human p40 also known as  $\mathbb{L}$ -12 $\beta$ . p40 is a 40 kDa subunit of  $\mathbb{L}$ -12 and  $\mathbb{L}$ -23.  $\mathbb{L}$ -12 is a heterodimeric cytokine composed of subunits  $\mathbb{L}$ -12 $\alpha$  p35 and  $\mathbb{L}$ -12 $\beta$  p40. The p40 subunit of  $\mathbb{L}$ -12 also combines with p19, a protein that shows no biological activity by itself, to form  $\mathbb{L}$ -23.  $\mathbb{L}$ -12 is secreted by activated monocytes, macrophages, and dendritic cells while  $\mathbb{L}$ -23 is secreted by activated dendritic cells and epithelial cells.  $\mathbb{L}$ -12 plays roles in T lymphocyte differentiation,  $\mathbb{E}$ -N $\gamma$  production, and NK cell cytotoxicity. The C17.8 antibody has been shown to neutralize both  $\mathbb{L}$ -12 and  $\mathbb{L}$ -23 bioactivity. Ustekinumab is used for the treatment of Crohn's disease, plaque psoriasis, and psoriatic arthritis.

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## **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 <a href="https://bioxcell.com/fags">https://bioxcell.com/fags</a>.

#### **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.

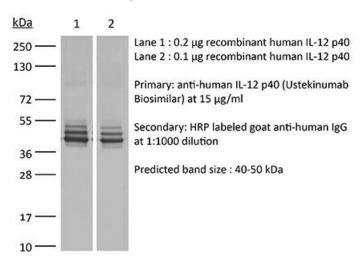
## **Application References**

For a complete list of references, visit <a href="https://bioxcell.com/sim0020?">https://bioxcell.com/sim0020?</a>
<a href="bxcs=9k1b3a#tab">bxcs=9k1b3a#tab</a> 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 <a href="technicalservice@bioxcell.com">technicalservice@bioxcell.com</a>.



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