# **Technical Data Sheet**

InVivoSIM anti-human IL-4Rα (CD124) (Dupilumab 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: SIM0023
Clone: Dupilumab
Isotype: Human IgG4, κ

Recommended Isotype Control(s): RecombiMAb human IgG4 (S228P) isotype control, anti-hen egg lysozyme

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

Immunogen:Human IL-4RαReported Applications:Functional assaysFormulation: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 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 as the therapeutic antibody Dupilumab making it ideal for research use. This Dupilumab biosimilar reacts with human  $\mathbb{L}$ -4R $\alpha$ .  $\mathbb{L}$ -4R $\alpha$  also known as CD124, associates with either the common  $\gamma$ -chain (CD132) to form type 1  $\mathbb{L}$ -4R which only binds  $\mathbb{L}$ -4 or with  $\mathbb{L}$ -13R $\alpha$ 1 to form type  $\mathbb{L}$   $\mathbb{L}$ -4R which can bind  $\mathbb{L}$ -4 or  $\mathbb{L}$ -13.  $\mathbb{L}$ -4R $\alpha$  is expressed on various cell types, including T helper type 2 (Th2) cells, mast cells, basophils, eosinophils, macrophages, dendritic cells, and endothelial cells. The expression of  $\mathbb{L}$ -4R $\alpha$  on these different cell types allows for a variety of cellular responses to  $\mathbb{L}$ -4 and  $\mathbb{L}$ -13, including regulation of immune cell differentiation, activation, proliferation, and survival. Additionally,  $\mathbb{L}$ -4 and  $\mathbb{L}$ -13 signaling through  $\mathbb{L}$ -4R $\alpha$  can promote tissue repair and remodeling, as well as

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contribute to the pathogenesis of various allergic and inflammatory diseases. Dupilumab binds IL-4Rα and inhibits signaling of both IL-4 and IL-13. It has shown efficacy across multiple diseases with underlying type 2 signatures and is used for treatment of asthma, atopic dermatitis, and chronic sinusitis with nasal polyposis.

### **Storage**

Store at the stock concentration at 4°C. **Do not freeze.** 

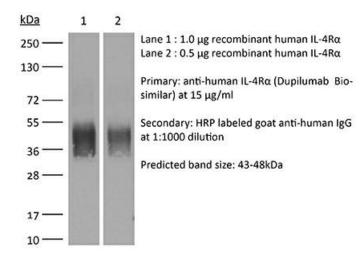
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at <a href="https://bioxcell.com/fags">https://bioxcell.com/fags</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.

# **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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