

## **Exazym® Antibody pair human IL-4**

### **Catalogue Number 10-3011-01**

#### **For research use only. Not for use in diagnostic procedures.**

This information leaflet describes how to store and correctly use Exazym® Antibody pair human IL-4 (cat no. 10-3011-01). The kit contains matching capture and detector antibodies against human interleukin-4. The detector antibody is prepared with an oligo-dT primer and should be used together with an Exazym® Polymerase Reaction Kit and an Exazym® Detection Kit to set up a BOLD amplified anti-IL-4 immunoassay.

### **Introduction to BOLD**

Measurement of low abundance biomolecules remains a challenge in many pre-clinical, clinical and diagnostic applications due to insufficient sensitivity. While some biomarker discovery and detection as well as clinical diagnostic measurement methods have made significant advances in sensitivity, there are still many potential disease biomarkers that exist in accessible biofluids at levels below the detection limits of these techniques or where an increased precision is desirable. Furthermore, they require specialized instruments, increasing the cost and logistical complexity of large-scale adoption.

Cavidi has developed a range of Exazym® reagents and kits based on its proprietary BOLD signal amplification technology. BOLD brings ultra-sensitive detection levels to conventional immunodiagnostic assays and "BOLD" stands for Binding Oligo Ladder Detection. When using BOLD an oligo-dT primer conjugated to a detector antibody is mixed with a polymerase containing reverse transcriptase activity, 5-Bromo-2'-deoxyuridine 5'-triphosphate monomers (BrdUTP) and a rA-template to create a long hybrid-ladder of DNA:RNA to which biotinylated anti-BrdU detection antibodies selectively bind to enable the amplified signal. Integration of BOLD into an immunoassay improves the sensitivity and the limit of detection can be improved by up to 50x.

### **What is Exazym® Antibody pair human IL-4?**

Three Exazym® products are necessary to perform a BOLD amplified anti-IL-4 immunoassay; i) the antibody pair with a primer conjugated to the detector antibody, ii) the polymerization phase to generate the hybrid ladder of DNA:RNA and, iii) binding of the anti-BrdU detection antibodies to the hybrid ladder of DNA:RNA to provide the final signal. All required components for these three unique events of BOLD are included in:

- Exazym® Antibody pair human IL-4 - matching capture and detector antibodies against human interleukin-4, where the detector antibody is prepared with an oligo-dT primer
- Exazym® Polymerase Reaction Kit 96 and 960 - for performing the polymerase reaction when applying BOLD technology for signal amplification of immunoassays.
- One of the Exazym® Detection Kits - for detection of the DNA:RNA hybrid by any of the available anti-BrdU antibodies.

The kit is intended for research use only and not for diagnostic procedures.

## Product specification

Matching capture and detector antibodies against human interleukin-4, and with an oligo-dT primer conjugated to the detector antibody. The antibodies can also be used for IL-4 from non-human primates like rhesus macaque and cynomolgus macaque. Exazym® Antibody pair human IL-4 is designed to be used together with Exazym® Polymerase Reaction Kit 96 or 960 and any of the Exazym® Detection Kits.

## Components included in the kit

1 vial 80 µg Exazym IL-4 Capture antibody (clone IL4-I), 1 mg/mL, in phosphate buffer with 0.02% sodium azide

1 vial 30 µg Exazym IL-4 Detector antibody (clone IL4-II), lot specific concentration, in phosphate buffer with 0.02% sodium azide

## Shipping conditions

Shipped on wet ice.

## Storage conditions

Stored at +2°C to +8 °C.

## Warnings



Do not use a kit which is broken upon arrival. Please contact customer support immediately (see below for contact details).

This product is for research and laboratory use only and shall be handled by professional and trained users only.

Personal protective equipment shall be used such as eye shield and gloves when handling the kit.

For further safety information, please refer to the respective Material Safety Data Sheet on Cavid's web page or call customer support (see below for contact details).

## How to use Exazym® Antibody pair human IL-4

Exazym® Antibody pair human IL-4 is used together with Exazym® Polymerase Reaction Kit 96 or 960 and any of the Exazym® Detection Kits to set up a BOLD amplified anti human IL-4 immunoassay. Use your immunoassay buffers and reagents of choice and optimise the concentration of capture and detector antibody for your specific application. The concentration of Exazym IL-4 Detector antibody is lot specific and the concentration is specified on the vial.

## Intellectual Property rights

The use of this product may be patent protected (PCT WO 2022/250596 A1). Any use except for research purposes requires a license from Cavid AB, Virdings Allé 2 SE-754 50 Uppsala, Sweden. For further information and license terms and conditions, please contact Cavid AB at [info@cavidi.se](mailto:info@cavidi.se) or +46 (0)707 38 07 29.

## How do I get in contact with Cavid's tech support?

In case you have any inquiries or technical support questions, please contact us at [support@cavidi.se](mailto:support@cavidi.se) or +46 (0)707 38 07 29.

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