# abcam

# Product datasheet

# Human IL-23R ELISA Kit ab277716

重组 SimpleStep ELISA

5 图像

#### 概述

产品名称

人IL-23R ELISA试剂盒

检测方法

Colorimetric

精确度

批次内

| 样品    | n | Mean | SD | CV%  |
|-------|---|------|----|------|
| Serum | 8 |      |    | 2.8% |

批次间

| 样品    | n | Mean | SD | CV%  |
|-------|---|------|----|------|
| Serum | 3 |      |    | 3.4% |

样品类型

Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

检测类型

Sandwich (quantitative)

灵敏度

9.5 pg/ml

范围

31.25 pg/ml - 2000 pg/ml

回收率

特定样本回收率

| 样品类型               | 平均% | 范围         |
|--------------------|-----|------------|
| Serum              | 89  | 88% - 91%  |
| Cell culture media | 99  | 98% - 100% |
| Hep Plasma         | 91  | 88% - 95%  |
| EDTA Plasma        | 94  | 86% - 98%  |
| Cit plasma         | 91  | 86% - 94%  |

检测时间

1h 30m

实验步骤

One step assay

#### 种属反应性

# 产品概述

#### 与反应: Human

Human IL-23R ELISA kit (ab277716) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Human IL-23R protein in human serum, plasma, and cell culture supernatants. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human IL-23R with 9.5 pg/mL sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- -Single-wash protocol reduces assay time to 90 minutes or less
- -High sensitivity, specificity and reproducibility from superior antibodies
- -Fully validated in biological samples
- -96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

说明

Interleukin-23 receptor, encoded by the IL23R gene, is a type I cytokine protein receptor that pairs together with IL-12R $\beta$ 1 as a complex in which IL-23 has a binding affinity for signaling innate and adaptive immunity. More specifically, IL-23R associates with Jak2 and Stat3 signaling molecules and is expressed by both T cells and NK cells. This kit is developed to recognize only IL-23R.

平台

Pre-coated microplate (12 x 8 well strips)

# 性能

# 存放说明

# Store at +4°C. Please refer to protocols.

| 组 <b>件</b>  | 1 x 96 tests |
|---|--------------|
| 10X Human IL-23R Capture Antibody                   | 1 x 600µl    |
| 10X Human IL-23R Detector Antibody                  | 1 x 600µl    |
| 10X Wash Buffer PT (ab206977)                       | 1 x 20ml     |
| Antibody Diluent 5BI                                | 1 x 6ml      |
| Human IL-23R Lyophilized Recombinant Protein        | 2 vials      |
| Plate Seals   | 1 unit       |
| Sample Diluent NS (ab193972)                        | 1 x 50ml     |
| SimpleStep Pre-Coated 96-Well Microplate (ab206978) | 1 unit       |
| Stop Solution                                       | 1 x 12ml     |

| 组 <b>件</b>               | 1 x 96 tests |
|--------------------------|--------------|
| TMB Development Solution | 1 x 12ml     |

#### 功能

Associates with IL12RB1 to form the interleukin-23 receptor. Binds IL23 and mediates T-cells, NK cells and possibly certain macrophage/myeloid cells stimulation probably through activation of the Jak-Stat signaling cascade. IL23 functions in innate and adaptive immunity and may participate in acute response to infection in peripheral tissues. IL23 may be responsible for autoimmune inflammatory diseases and be important for tumorigenesis.

#### 组织特异性

Expressed by monocytes, Th1, Th0, NK and dendritic cells. Isoform 1 is specifically expressed in NK cells.

### 疾病相关

Genetic variations in IL23R are associated with inflammatory bowel disease type 17 (IBD17) [MIM:612261]. IBD17 is a chronic, relapsing inflammation of the gastrointestinal tract with a complex etiology. It is subdivided into Crohn disease and ulcerative colitis phenotypes. Crohn disease may affect any part of the gastrointestinal tract from the mouth to the anus, but most frequently it involves the terminal ileum and colon. Bowel inflammation is transmural and discontinuous; it may contain granulomas or be associated with intestinal or perianal fistulas. In contrast, in ulcerative colitis, the inflammation is continuous and limited to rectal and colonic mucosal layers; fistulas and granulomas are not observed. Both diseases include extraintestinal inflammation of the skin, eyes, or joints.

Genetic variations in IL23R are a cause of susceptibility to psoriasis type 7 (PSORS7) [MIM:605606]. Psoriasis is a common, chronic inflammatory disease of the skin with multifactorial etiology. It is characterized by red, scaly plaques usually found on the scalp, elbows and knees. These lesions are caused by abnormal keratinocyte proliferation and infiltration of inflammatory cells into the dermis and epidermis.

序列相似性

Belongs to the type I cytokine receptor family. Type 2 subfamily. \\

Contains 2 fibronectin type-III domains.

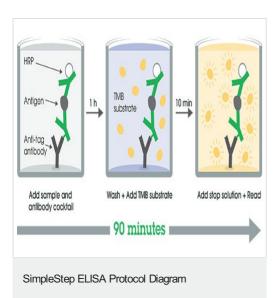
翻译后修饰

Phosphorylated in response to IL23.

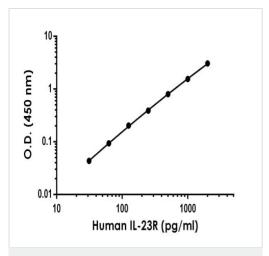
细胞定位

Cell membrane.

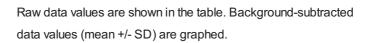
#### 图片

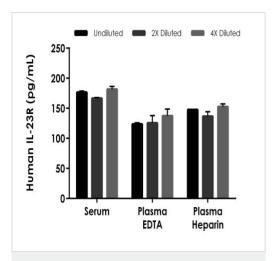


SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



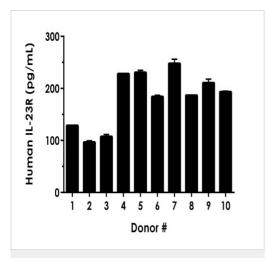
. Example of human IL-23R standard curve in Sample Diluent NS. The IL-23R standard curve was prepared as described in Section 10.





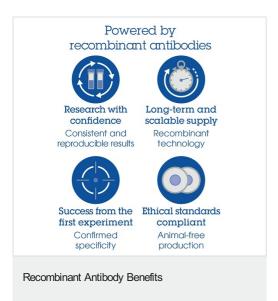
Interpolated concentrations of native IL-23R in human serum and plasma samples.

The concentrations of IL-23R were measured in duplicates, interpolated from the IL-23R standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 100%, plasma (EDTA) 100%, and plasma (heparin) 100%. The interpolated dilution factor corrected values are plotted (mean +/-SD, n=2). The mean IL-23R concentration was determined to be 174.9 pg/mL in serum, 128.8 pg/mL in plasma (EDTA), and 145.5 pg/mL in plasma (heparin).



Serum from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean IL-23R concentration was determined to be 181.9 pg/mL with a range of 96.7 - 248.0 pg/mL.



To learn more about the advantages of recombinant antibodies see **here**.

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