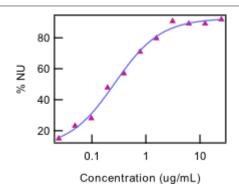


Anti-Human IL-23 p19 Functional Grade Purified

Catalog Number: 16-5236

Also known as: Interleukin 23 p19, IL23 p19, IL23p19, IL-23p19

RUO: For Research Use Only. Not for use in diagnostic procedures.



Neutralization of Human IL-23 Recombinant Protein activity as measured by IL-17A induction in BALB/c splenocytes.

#### **Product Information**

Contents: Anti-Human IL-23 p19 Functional

**Grade Purified** 

REF Catalog Number: 16-5236

Clone: HNU2319 Concentration: 1 mg/mL

**Host/Isotype:** Mouse IgG1, kappa **Handling Conditions:** Use in sterile

environment.

Endotoxin: Less than 0.001 ng/ug antibody,

as determined by the LAL assay.



**Formulation:** aqueous buffer, no sodium azide **Temperature Limitation:** Store at 2-8°C.

Batch Code: Refer to vial
Use By: Refer to vial



## Description

The HNU2319 monoclonal antibody is specific to the p19 subunit of human IL-23, a heterodimeric cytokine made up of two covalently linked subunits, p40 and p19. It is closely related to IL-12, with which it shares the p40 subunit. Dendritic cells and macrophages produce IL-23 in response to TLR2, TLR4, and TLR8 ligands, as well as the  $\beta$ -qlucan receptor Dectin-1.

Human IL-23 induces proliferation of memory T cells and induces moderate levels of IFN- $\gamma$  production by naïve and memory T cells, as compared to IL-12. In contrast, the mouse IL-23 biological activities are more distinctly different than those of mouse IL-12 suggesting the signaling or response elements (receptors) differ between species. The IL-23 receptor is also heterodimeric and shares the IL-12R $\beta$ 1 chain with IL-12, while the IL-23R chain is unique to IL-23. Signaling occurs through the Jak/STAT pathway and results in ROR $\gamma$ t expression, which drives the differentiation of CD4 $^+$  T-cells towards the Th17 phenotype.

The monoclonal antibody HNU2319 neutralizes the bioactivity of IL-23 without affecting IL-12.

# **Applications Reported**

The monoclonal antibody HNU2319 reacts with the p19 subunit of human IL-23 and inhibits its bioactivity.

#### **Applications Tested**

The ND $_{50}$  of HNU2319, as determined by the neutralization of mouse IL-17A induction in balb/c splenocytes by recombinant human IL-23, is 0.2-0.4 µg/ml in the presence of 2 ng/ml IL-23. This antibody is specific to the p19 subunit of IL-23, and will not affect the bioactivity of IL-12. The neutralization dose of this antibody will vary depending on cell type, assay method, and concentration of cytokine.



An Affymetrix Company

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#### References

Dennehy KM, Willment JA, Williams DL, Brown GD. Reciprocal regulation of IL-23 and IL-12 following co-activation of Dectin-1 and TLR signaling pathways. Eur J Immunol. 2009 May;39(5): 1379-86

Hillyen P, Larche MJ, Bowman EP, McClanahan TK, de Waal Malefyt R, Schewitz LP, Giddins G, Feldmann M, Kastelein RA, Brennan FM. Investigating the role of the interleukin-23/-17A axis in rheumatoid arthritis. Rheumatology. 2009; 48: 1581-9

Goriely S., Neurath MF., and Goldman M. How microorganisms tip the balance between interleukin-12 family members. Nat Rev Immunol. 2008 Jan;8(1):81-6

### **Related Products**

14-8239 Human IL-23 Recombinant Protein
16-4714 Mouse IgG1 K Isotype Control Functional Grade Purified (P3.6.2.8.1)
16-7129 Anti-Human IL-12/IL-23 p40 Functional Grade Purified (C8.6)
34-8239 Human IL-23 Recombinant Protein Carrier-Free
88-7237 Human IL-23 ELISA Ready-SET-Go!® Set
88-7239 Human IL-23 (p19/p40) Platinum ELISA