

# IL23A Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP22239c

## **Product Information**

Application	WB, FC, E
Primary Accession	Q9NPF7
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB56752
Calculated MW	20730

# **Additional Information**

Gene ID	51561
Other Names	Interleukin-23 subunit alpha, IL-23 subunit alpha, IL-23-A, Interleukin-23 subunit p19, IL-23p19, IL23A, SGRF
Target/Specificity	This IL23A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 33-67 amino acids from the Central region of human IL23A.
Dilution	WB~~1:2000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IL23A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

#### **Protein Information**

Name	IL23A
Synonyms	SGRF
Function	Associates with IL12B to form the pro-inflammatory cytokine IL-23 that plays different roles in innate and adaptive immunity (PubMed: <u>11114383</u> ). Released by antigen-presenting cells such as dendritic cells or macrophages,

	binds to a heterodimeric receptor complex composed of IL12RB1 and IL23R to activate JAK2 and TYK2 which then phosphorylate the receptor to form a docking site leading to the phosphorylation of STAT3 and STAT4 (PubMed: <u>29287995</u> , PubMed: <u>32474165</u> , PubMed: <u>33606986</u> ). This process leads to activation of several pathways including p38 MAPK or NF-kappa-B and promotes the production of pro- inflammatory cytokines such as interleukin-17A/IL17A (PubMed: <u>12023369</u> ). In turn, participates in the early and effective intracellular bacterial clearance (PubMed: <u>32474165</u> ). Promotes the expansion and survival of T-helper 17 cells, a CD4-positive helper T-cell subset that produces IL-17, as well as other IL-17-producing cells (PubMed: <u>17676044</u> ).
Cellular Location	Secreted. Note=Secreted upon association with IL12B
Tissue Location	Secreted by activated dendritic and phagocytic cells and keratinocytes. Also expressed by dermal Langerhans cells (at protein level).

### Background

Associates with IL12B to form the IL-23 interleukin, a heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to a heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak- Stat signaling cascade, stimulates memory rather than naive T- cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis.

# References

Oppmann B.,et al.Immunity 13:715-725(2000). Hirata Y.,et al.Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases. Clark H.F.,et al.Genome Res. 13:2265-2270(2003). Parham C.,et al.J. Immunol. 168:5699-5708(2002). Pirhonen J.,et al.J. Immunol. 169:5673-5678(2002).

#### Images



Overlay histogram showing A431 cells stained with AP22239c(green line). The cells were fixed with 2% paraformaldehyde and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at Room temperature. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

Anti-IL23A Antibody (Center) at 1:2000 dilution + Mouse pancreas lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 21 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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