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Anti-IL22 Antibody Picoband™ (monoclonal, 7F2)

Catalog # ABO14801

Product Information

Application	WB, FC
Primary Accession	Q9GZX6
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-IL22 Antibody Picoband™ (monoclonal, 7F2) . Tested in Flow Cytometry, WB applications. This antibody reacts with Human.

Additional Information

Gene ID	50616
Other Names	Interleukin-22, IL-22, Cytokine Zcyto18, IL-10-related T-cell-derived-inducible factor, IL-TIF, IL22, ILTIF, ZCYTO18
Calculated MW	20011
Application Details	Western blot, 0.1-0.5 □g/ml Flow Cytometry, 1-3 □g/1x10^6 cells
Subcellular Localization	Secreted.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Clone Names	Clone: 7F2
Immunogen	E. coli-derived human IL-22 recombinant protein (Position: A34-I179). Human IL-22 shares 81.4% amino acid (aa) sequence identity with mouse IL-22.
Cross Reactivity	No cross-reactivity with other proteins.
Storage	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.

Protein Information

Name	IL22

Synonyms	ILTIF, ZCYTO18
Function	Cytokine that plays a critical role in modulating tissue responses during inflammation (PubMed:17204547). Plays an essential role in the regeneration of epithelial cells to maintain barrier function after injury and for the prevention of further tissue damage (PubMed:17204547). Unlike most of the cytokines, has no effect on immune cells. Signals through a heterodimeric receptor composed of two subunits, the specific receptor IL22RA1 which is present on non-immune cells in many organs and the shared subunit IL10RB (PubMed:10875937, PubMed:18599299). Ligation of IL22RA1 with IL22 induces activation of the tyrosine kinases JAK1 and TYK2, which in turn activates STAT3. In turn, promotes cell survival and proliferation through STAT3, ERK1/2 and PI3K/AKT pathways (PubMed:25793261, PubMed:31311100). Promotes phosphorylation of GSK3B at 'Ser-9' and CTTN (By similarity). Promotes epithelial cell spreading (By similarity).
Cellular Location	Secreted.

Background

Interleukin-22 (IL-22), also known as ILTIF, is protein that in humans is encoded by the IL22 gene. IL-22 a member of a group of cytokines called the IL-10 family or IL-10 superfamily, a class of potent mediators of cellular inflammatory responses. Using FISH, the IL22 gene is mapped to chromosome 12q15, close to the IFNG and the herpesvirus saimiri-induced AK155 genes. IL-22 can contribute to immune disease through the stimulation of inflammatory responses, S100s and defensins. It also promotes hepatocyte survival in the liver and epithelial cells in the lung and gut similar to IL-10. In some contexts, the pro-inflammatory versus tissue-protective functions of IL-22 are regulated by the often co-expressed cytokine IL-17A.

Images

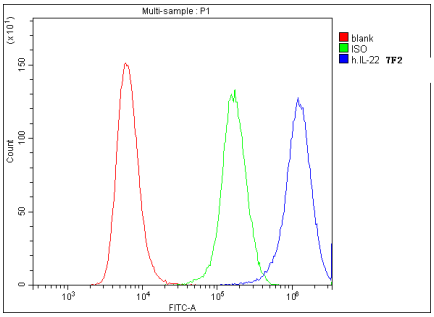


Figure 1. Flow Cytometry analysis of HL-60 cells using anti-IL22 antibody (M00963).
Overlay histogram showing HL-60 cells stained with M00963 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-IL22 Antibody (M00963,1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

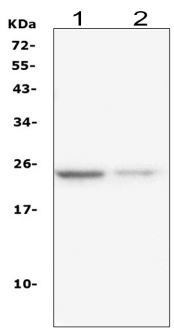


Figure 2. Western blot analysis of IL22 using anti-IL22 antibody (M00963).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human U-87MG whole cell lysates,
Lane 2: human A375 whole cell lysates,
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-IL22 antigen affinity purified monoclonal antibody (Catalog # M00963) at 0.5 µg/mL overnight at 4°C, then

washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for IL22 at approximately 24KD. The expected band size for IL22 is at 20KD.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.