Human IL-22 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF782

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human, recombinant mouse, and recombinant rat IL-22 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human IL-10 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human IL-22 Ala34-Ile179 Accession # Q9GZX6
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

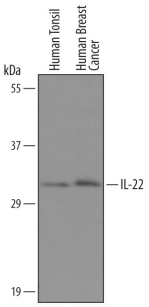
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize IL−22-induced IL−10 secretion in the COLO 205 human colorectal adenocarcinoma cell line [Marehalli, L. *et al.* (2004) Intl. Immunopharmacol. **4**:679]. The Neutralization Dose (ND_{50}) is typically 0.5-2.5 µg/mL in the presence of 1 ng/mL Recombinant Human IL−22.	

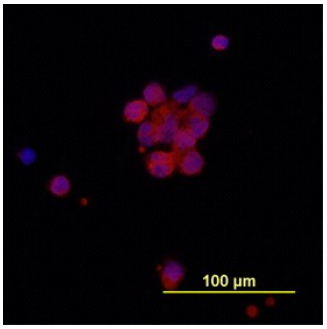
DATA

Western Blot



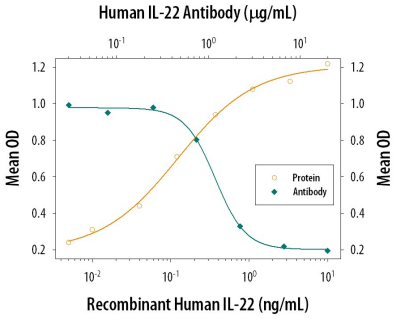
Detection of Human IL-22 by Western Blot. Western blot shows lysates of human tonsil tissue and human breast cancer tissue. PVDF Membrane was probed with 1 µg/mL of Goat Anti-Human IL-22 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF782) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for IL-22 at approximately 32 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



IL-22 in Human PBMCs. IL-22 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) treated with lipopolysaccharide (LPS) using 10 µg/mL Goat Anti-Human IL-22 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF782) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

Neutralization



IL-10 Secretion Induced by IL-22 and Neutralization by Human IL-22 Antibody. Recombinant Human IL-22 (Catalog # 782-IL) stimulates IL-10 secretion in the COLO 205 human colorectal adeno-carcinoma cell line in a dose-dependent manner (orange line), as measured by the Human IL-10 DuoSet ELISA Development Kit (Catalog # DY217B). IL-10 secretion elicited by Recombinant Human IL-22 (1 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-22 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF782). The ND_{50} is typically 0.5-2.5 µg/mL.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

Human IL-22 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF782

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin-22 (IL-22), also known as IL-10-related T cell-derived inducible factor (IL-TIF) was initially identified as a gene induced by IL-9 in mouse T cells and mast cells. Human IL-22 cDNA encodes a 179 amino acid (aa) residue protein with a putative 33 aa signal peptide that is cleaved to generate a 147 aa mature protein that shares approximately 79% and 22% aa sequence identity with mouse IL-22 and human IL-10, respectively. The human IL-22 gene is localized to chromosome 12q15. Although it exists as a single copy gene in human and in many mouse strains, the mouse IL-22 gene is duplicated in some mouse strains including C57B1/6, FVB and 129. The two mouse genes designated IL-TIFα and IL-TIFβ, share greater than 98% sequence homology in their coding region. IL-22 has been shown to activate STAT1 and STAT3 in several hepatoma cell lines and upregulate the production of acute phase proteins. IL-22 is produced by normal T cells upon anti-CD3 stimulation in humans. Mouse IL-22 expression is also induced in various organs upon lipopolysaccharide injection, suggesting that IL-22 may be involved in inflammatory responses. The functional IL-22 receptor complex consists of two receptor subunits, IL-22 R (previously an orphan receptor named CRF2-9) and IL-10 Rβ (previously known as CRF2-4), belonging to the class II cytokine receptor family.

References:

1. Dumoutier, L. *et al.* (2000) J. Immunol. **164**:1814.
2. Xie, M-H. *et al.* (2000) J. Biol. Chem. **275**:31335.
3. Dumoutier, L. *et al.* (2000) Proc. Natl. Acad. Sci. USA **97**:10144.
4. Kotenko, S.V. *et al.* (2001) J. Biol. Chem. **276**:2725.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956