

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-22 in ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 142928
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-22 Ala34-Ile179 Accession # Q9GZX6
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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.

Human IL-22 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human IL-22 Antibody (Catalog # MAB7822)
ELISA Capture	2-8 µg/mL	Human IL-22 Antibody (Catalog # MAB7822R)
ELISA Detection	0.5-2.0 µg/mL	Human IL-22 Biotinylated Antibody (Catalog # BAM7821)
Standard		Recombinant Human IL-22 (Catalog # 782-IL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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-TIF α and IL-TIF β , share greater than 98% sequence homology in their coding region. IL-22 has been shown to activate STAT-1 and STAT-3 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 R β (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) *PNAS* **97**:10144.
4. Kotenko, S.V. *et al.*, (2001) *J. Biol. Chem.* **276**:2725.