

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-22 in ELISAs and Western blots. In sandwich immunoassays, approximately 75% cross-reactivity with recombinant rat IL-22 is observed and less than 25% cross-reactivity with recombinant human IL-22 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse IL-22 Leu34-Val179 Accession # Q9JJY9
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse IL-22 (Catalog # 582-ML)
<b>Mouse IL-22 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	1-4 µg/mL	Mouse IL-22 Antibody (Catalog # AF582)
<b>ELISA Detection</b>	0.2-0.8 µg/mL	Mouse IL-22 Biotinylated Antibody (Catalog # BAF582)
<b>Standard</b>		Recombinant Mouse IL-22 (Catalog # 582-ML)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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. Mouse 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 human IL-22 and IL-10, respectively. The mouse IL-22 gene is localized to chromosome 10. Although it exists as a single copy gene in many mouse strains, the IL-22 gene is duplicated in some mouse strains including C57B1/6, FVB and 129. The two mouse genes designated IL-TIF $\alpha$  and IL-TIF $\beta$ , 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 up-regulate the production of acute phase proteins. IL-22 is produced by normal mouse T cells upon Con A activation. 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 $\beta$  (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.