



3050 Spruce Street  
Saint Louis, Missouri 63103 USA  
Telephone 800-325-5832 • (314) 771-5765  
Fax (314) 286-7828  
email: techserv@sial.com  
sigma-aldrich.com

## Product Information

### Monoclonal Anti-Interleukin-22

Clone 142938

Purified Mouse Immunoglobulin

Product Number **I 8408**

#### Product Description

Monoclonal Anti-Interleukin-22 (IL-22) (mouse IgG2b) is purified from the 142938 mouse hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, *E. coli*-derived, recombinant human interleukin 22.<sup>1</sup> The antibody is purified by Protein G affinity chromatography.

Anti-Interleukin-22 detects human interleukin 22 by immunoblotting and ELISA. The antibody shows 100% cross-reactivity with recombinant mouse IL-22 and recombinant rat IL-22. It shows no cross-reactivity with recombinant human IL-10.

Interleukin 22 (IL-22), also known as IL-10-related T cell-derived inducible factor (IL-TIF), was originally identified as a gene induced by IL-9 in mouse T cells and mast cells.<sup>2</sup> The human IL-22 gene is localized to chromosome 12q15. IL-22 activates STAT1 and STAT3 in several hepatoma cell lines and upregulates the production of acute phase proteins. In humans, IL-22 is produced by normal T cells upon anti-CD3 stimulation. The IL-22 receptor complex consists of two receptor subunits, IL-22 R (formerly an orphan receptor named CRF2-9) and IL-10 R $\beta$  (formerly known as CRF2-4), belonging to the class II cytokine receptor family.<sup>3, 4</sup>

#### Reagent

Anti-Interleukin-22 is supplied as approximately 500  $\mu$ g of antiserum lyophilized from a 0.2  $\mu$ m filtered solution of phosphate buffered saline with 5% trehalose.

#### Storage/Stability

Prior to reconstitution, store at  $-20^{\circ}\text{C}$ . Reconstituted product may be stored at  $2-8^{\circ}\text{C}$  for up to one month. For prolonged storage, freeze in working aliquots. Avoid repeated freezing and thawing. Do not store in frost-free freezer.

#### Preparation Instructions

To one vial of lyophilized powder, add 1 ml of 0.2  $\mu$ m filtered solution of phosphate buffered saline to produce a 0.5 mg/ml stock solution of antibody.

#### Product Profile

For ELISA, a working antibody concentration of 0.5-1.0  $\mu$ g/ml is recommended. The detection limit for recombinant human interleukin 22 is approximately 20 ng/well.

For immunoblotting, a working antibody concentration of 1-2  $\mu$ g/ml is recommended. The detection limit for recombinant human interleukin 22 is approximately 5 ng/lane and 0.5 ng/lane under non-reducing and reducing conditions, respectively.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining the optimal working concentrations by titration.

Endotoxin level is  $< 0.1$  EU (endotoxin units)/ $\mu$ g of antibody as determined by the LAL (*Limulus* amoebocyte lysate) method.

## References

1. Dumoutier, L., et al, Proc. Natl. Acad. Sci. USA, **97**, 10144-10149 (2000).
2. Dumoutier, L., et al., J. Immunol., **164**, 1814-1819 (2000).
3. Xie, M.H., et al., J. Biol. Chem., **275**, 31335-31344 (2000).
4. Kotenko, et al., J. Biol. Chem., **276**, 2725-2732 (2001).

KAA 06/04

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.