

## Product Information

**Anti-Interleukin-22 Receptor, N-Terminal**  
produced in rabbit, affinity isolated antibody

Catalog Number **I5657**

### Product Description

Anti-Interleukin-22 Receptor (IL-22R), N-Terminal is produced in rabbit using a synthetic peptide (QSSNFENILTWDSGPE) corresponding to amino acids 31-46 of human IL-22R precursor<sup>1</sup> as immunogen. The antibody is purified by immunoaffinity chromatography.

Anti-Interleukin-22 Receptor (IL-22R), N-Terminal recognizes human IL-22R (~62 kDa) by immunoblotting.

Interleukin-22 (IL-22), also designated IL-TIF for IL-10 related T cell-derived inducible factor, is a novel cytokine.<sup>1-3</sup> The receptor for IL-22 (IL-22R, also termed CRF2-9 and IL-TIF-R1 chain), is a member of the class II cytokine receptor family.<sup>3,4</sup> IL-22R, a 574 amino acid type I transmembrane protein, contains an extracellular region, a transmembrane segment, and a cytoplasmic domain.<sup>3</sup> It shares ~15% amino acid identity overall to IL-10R1 and 17% amino acid identity within the extracellular region.

IL-22R forms a complex with IL-10 receptor  $\beta$  chain and mediates IL-22 signaling. IL-22 and its receptor activate the JAK-STAT signaling pathway. IL-22R is expressed in normal liver and kidney and their cell lines HepG2 and TK-10. A soluble form of the IL-22 receptor, termed IL-22 binding protein (IL-22BP) and IL-22 receptor- $\alpha$  2 (IL-22R $\alpha$ 2), has been identified.<sup>5-7</sup> IL-22BP prevents binding of IL-22 to the functional cell surface IL-22R complex and neutralizes IL-22 activity. LPS (lipopolysaccharide) induces IL-22 expression, which indicates a role for IL-22 in inflammatory responses.

### Reagent

Supplied at ~1 mg/ml in phosphate buffered saline containing 0.02% sodium azide.

### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### Storage/Stability

Antibody can be stored at 2-8 °C for three months and at -20 °C for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

### Product Profile

**Immunoblotting:** the recommended working antibody concentration is 0.5-1  $\mu$ g/ml using human HepG2 cell lysates.

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

### References

1. Dumoutier, L., et al., Cloning and characterization of IL-10-related T cell-derived inducible factor (IL-TIF), a novel cytokine structurally related to IL-10 and inducible by IL-9. *J. Immunol.*, **164**, 1814-1819 (2000).
2. Dumoutier, L., et al., Human interleukin-10-related T cell-derived inducible factor: molecular cloning and functional characterization as an hepatocyte-stimulating factor. *Proc. Natl. Acad. Sci. USA*, **97**, 10144-10149 (2000).
3. Xie, M.H., et al., Interleukin (IL)-22, a novel human cytokine that signals through the interferon receptor-related proteins CRF2-4 and IL-22R. *J. Biol. Chem.*, **275**, 31335-31339 (2000).

4. Kotenko, S.V., et al., Identification of the functional interleukin-22 (IL-22) receptor complex. *J. Biol. Chem.*, **276**, 2725-2732 (2001).
5. Kotenko, S.V., et al., Identification, cloning, and characterization of a novel soluble receptor that binds IL-22 and neutralizes its activity. *J. Immunol.*, **166**, 7096-7103 (2001).
6. Dumoutier, L., et al., Cloning and characterization of IL-22 binding protein, a natural antagonist of IL-10-related T cell-derived inducible factor/IL-22. *J. Immunol.*, **166**, 7090-7095 (2001).
7. Xu, W., et al., A soluble class II cytokine receptor, IL-22RA2, is a naturally occurring IL-22 antagonist. *Proc. Natl. Acad. Sci. USA*, **98**, 9511-9516 (2001).

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