

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 precursor¹ 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.¹⁻³ 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.^{3,4} IL-22R, a 574 amino acid type I transmembrane protein, contains an extracellular region, a transmembrane segment, and a cytoplasmic domain.³ 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 β 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- α 2 (IL-22R α 2), has been identified.⁵⁻⁷ 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 μ 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).

RC,PHC 09/12-1