

## TotalSeq™-A0985 anti-human CD360 (IL-21R) Antibody

<b>Catalog# / Size</b>	359519 / 10 µg
<b>Clone</b>	17A12
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	IL-21 Receptor, novel interleukin receptor (NLR), MGC10967
<b>Isotype</b>	Mouse IgG1, κ
<b>Barcode Sequence</b>	GAGGATGATGCCATG
<b>Description</b>	Human interleukin 21 receptor (IL-21R) is a single pass type I membrane protein and a member of the type I cytokine receptor family. Of the type I cytokine receptors, IL-21R exhibits greatest extracellular homology to the IL-2R beta subunit (i.e., it contains one copy of the WSXWS-containing cytokine-binding domain). Intracellular domains of IL-21R include the Box 1 and Box 2 elements, which are similar to the IL-9R intracellular region. Upon binding IL-21, IL-21R forms a heterodimer with the common gamma subunit (CD132) and induces Jak/Stat signaling. IL-21R is expressed on B cells and at various levels on NK and T cells. IL-21 is a potent immunomodulatory cytokine mainly produced by NKT and CD4 T-cells (particularly the inflammatory Th17 subset) and has pleiotropic effects on both innate and adaptive immune responses. These actions include positive effects such as enhanced proliferation of natural killer (NK) cells and cytotoxic T cells that can destroy virally infected or cancerous cells and direct inhibitory effects on the antigen-presenting function of dendritic cells, and can be proapoptotic for B cells and NK cells. Studies have shown that IL-21 is also an autocrine cytokine that potently induces Th17 differentiation and suppresses Foxp3 expression, and serves as a target for treating inflammatory diseases.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human IL-21R expressing mouse M1-T22 cell line.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-A oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-A antibodies are compatible with 10x Genomics Single Cell Gene Expression <a href="#">Solutions</a> .

To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.

Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.

<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunofluorescent surface staining <sup>1</sup> .
<b>Additional Product Notes</b>	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. <a href="#">10x Genomics Chromium System and Reagents</a> ) and sequencer (e.g. Illumina analyzers) are required. Please contact <a href="#">technical support</a> for more information, or visit <a href="#">biolegend.com/totalseq</a> .  The barcode flanking sequences are CCTTGGCACCCGAGAATTCCA (PCR handle), and BAAA*A*A (capture sequence). B represents either C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.  View more applications data for this product in our <a href="#">Scientific Poster Library</a> .
<b>Application References</b> (PubMed link indicates BioLegend citation)	1. Bannantine J, <i>et al.</i> 2011. <i>Front Microbiol.</i> 2:163. (IF)
<b>RRID</b>	AB_2888700 (BioLegend Cat. No. 359519)

## Antigen Details

<b>Structure</b>	Single pass type I membrane protein, extracellular WSXWS-containing cytokine-binding domain, intracellular Box1 and Box2 domains
<b>Distribution</b>	B cells, various levels on NK cells, T cells, NKT cells, B cells, DCs, macrophages, non-hematopoietic cells, including keratinocytes and fibroblasts
<b>Ligand/Receptor</b>	IL-21
<b>Cell Type</b>	B cells, Dendritic cells, Fibroblasts, Macrophages, NK cells, NKT cells, T cells, Tregs
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors
<b>Antigen References</b>	1. Parrish-Novak J, <i>et al.</i> 2002. <i>J. Leukocyte Biol.</i> 72:856. 2. de Toter D, <i>et al.</i> 2006. <i>Blood</i> 107:3708. 3. Asao H, <i>et al.</i> 2001. <i>J. Immunol.</i> 167:1. 4. Davis ID, <i>et al.</i> 2007. <i>Clin. Cancer Res.</i> 13:6926. 5. Nurieva R. 2007. <i>Nature.</i> 448:480. 6. Dumoutier L, <i>et al.</i> 2000. <i>Proc. Natl. Acad. Sci. USA</i> 97:10144. 7. Ozaki, K, <i>et al.</i> 2000. <i>Proc. Natl. Acad. Sci. USA</i> 97:11439. 8. Parrish-Novak J, <i>et al.</i> 2000. <i>Nature</i> 408:57. 9. Spolski R and Leonard WJ. <i>et al.</i> 2008. <i>Annu. Rev. Immunol.</i> 26:57.
<b>Gene ID</b>	<a href="#">50615</a>

## Related Protocols

[TotalSeq™-A Antibodies and Cell Hashing with 10x Single Cell 3' Reagent Kit v3 3.1 Protocol](#)

## Other Formats

PE anti-human CD360 (IL-21R), APC anti-human CD360 (IL-21R), Brilliant Violet 421™ anti-human CD360 (IL-21R), Brilliant Violet 711™ anti-human CD360 (IL-21R), PE/Cyanine7 anti-human CD360 (IL-21R), TotalSeq™-A0985 anti-human CD360 (IL-21R) Antibody, TotalSeq™-C0985 anti-human CD360 (IL-21R) Antibody, TotalSeq™-D0985 anti-human CD360 (IL-21R)

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