

Purified anti-human IL-34 Antibody

Catalog# / Size	361301 / 50 µg
Clone	E0320E7
Regulatory Status	RUO
Other Names	Interleukin 34, C16orf77
Isotype	Mouse IgG2b, λ
Description	Human IL-34 shares a sequence identity of 99.6%, 72% and 71% with chimpanzee, rat, and mouse IL-34, respectively, on the amino acid level. The IL-34 gene is syntenic in the human, chimpanzee, rat, and mouse genomes. IL-34 has no apparent consensus structural domain or motif, and does not share sequence homology with M-CSF; nevertheless, it binds to the CSFR. These two cytokines are not identical in biological activity and signal activation. IL-34 and CSF show an equivalent ability to support cell growth or survival. However, these cytokines are differing in their ability to induce the production of chemokines (MCP-1 and eotaxin-2) in primary macrophages, the morphological change in TF-1-fms cells, and the migration of J774A.1 cells. The use of monoclonal antibodies against the CSFR suggests differential domain binding of the receptor to IL-34 and CSF and as a result, different bioactivities and signal activation kinetics/strength are produced for these cytokines.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant human IL-34
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	ELISA Capture - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by ELISA assay . For ELISA capture applications, a concentration range of 2-8 µg/mL is recommended. To obtain a linear standard curve, serial dilutions of human IL-34 recombinant protein ranging from 5000 to 78 pg/mL are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	ELISA Capture: The purified E0320E7 antibody is useful as the capture antibody in a sandwich ELISA assay, when used in conjunction with the biotinylated E033B8 antibody (Cat. No. 361401) as the detection antibody and recombinant human IL-34 (Cat. No. 577909) as the standard. Note: For testing human IL-34 in serum, plasma or cell culture supernatant, LEGEND MAX™ Human IL-34 ELISA Kit with Pre-coated Plates (Cat. No. 439607 & 439608) are specially developed and recommended.
Product Citations	1. Han N, <i>et al.</i> 2021. STAR Protocols. 2(2):100460. PubMed
RRID	AB_2563032 (BioLegend Cat. No. 361301)

Antigen Details

Structure	Secreted glycoprotein, homodimer
Distribution	IL-34 mRNA is expressed in many different tissues including: spleen, heart, brain, lung, liver, kidney, thymus, testes, ovary, small intestine, prostate, and colon
Function	IL-34 increases monocyte viability, induces macrophage proliferation, and synergizes with other cytokines to generate macrophages and osteoclasts from cultured progenitors. IL-34 promotes the formation of the colony forming unit-macrophage (CFU-M) in human bone marrow culture. IL-34 supports RANKL-induced osteoclastogenesis by promoting the adhesion and proliferation of osteoclast progenitors. Human IL-34 promotes osteoclast differentiation from peripheral blood mononucleated cells. In addition, systematic administration of IL-34 to mouse increases the number of CD11b+ cells and reduces bone mass. IL-1 β and TNF- α induce the expression of interleukin-34 mRNA in osteoblasts. IL-34 is also induced in macrophages infected with equine infectious anemia virus (EIAV).
Interaction	Macrophages, monocytes, myeloid cells
Ligand/Receptor	CSF-1R
Biology Area	Cell Biology, Immunology
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Clanchy FI, <i>et al.</i> 2006. <i>J. Leuko. Biol.</i> 79:757. 2. Lin H, <i>et al.</i> 2008. <i>Science</i> 320:807. 3. Chihara T, <i>et al.</i> 2010. <i>Cell. Death Differ.</i> 17:1917. 4. Wei S, <i>et al.</i> 2010. <i>J. Leuko. Biol.</i> 88:495. 5. Eda H, <i>et al.</i> 2011. <i>Rheumatol. Int.</i> 31:1525.
Gene ID	146433

Related Protocols

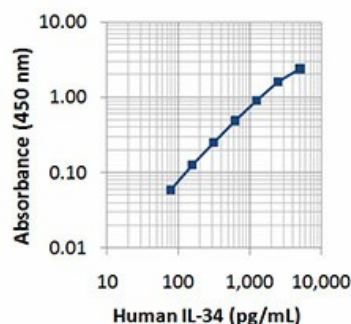
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Other Formats

Purified anti-human IL-34

Product Data



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