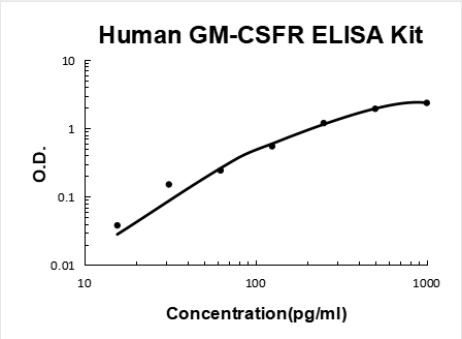
Gm-CSFR (CSF2RA) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	GM-CSFR (CSF2RA), ELISA Kit
Full Product Name	Human GM-CSFR ELISA Kit PicoKine
Product Gene Name	CSF2RA elisa kit
Species Reactivity	Human
Samples	Cell culture supernatants, serum and plasma (heparin, EDTA)
Detection Range	15.6 pg/ml - 1,000 pg/ml
Sensitivity	<10 pg/ml
Specificity	Natural and recombinant Human CSF2RA
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Ships with gel ice, can store for up to 3 days in room temperature. Freeze upon receiving.)
Inter-assay Precision	Inter-Assay Precision (Precision across assays): Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Intra-assay Precision	Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested on one plate to assess intra-assay precision.
Molecular Weight	46,207 Da
Chromosome Location	Chromosome: Y; NC_000024.9 (1337693..1378828). Location: Xp22.32 and Yp11.3
OMIM	300770
3D Structure	ModBase 3D Structure for P15509
Production Time	Due to severe delay and raw materials shortage, production time may takes between 5-8 weeks.
Product Categories/Family for CSF2RA elisa kit	PicoKine ELISA Kits
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for CSF2RA elisa kit	ELISA (EIA)

Related Product Information for CSF2RA elisa kit	Background: The granulocyte-macrophage colony-stimulating factor receptor also known as CD116 (Cluster of Differentiation 116), is a receptor for granulocyte-macrophage colony-stimulating factor, which stimulates the production of white blood cells.The protein encoded by this gene is the alpha subunit of the heterodimeric receptor for colony stimulating factor 2, a cytokine which controls the production, differentiation, and function of granulocytes and macrophages. The encoded protein is a member of the cytokine family of receptors. This gene is found in the pseudoautosomal region (PAR) of the X and Y chromosomes. Multiple transcript variants encoding different isoforms have been found for this gene, with some of the isoforms being membrane-bound and others being soluble. Principle of the Assay: The Picokine™ Human CSF2RA Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid-phase immunoassay specially designed to measure Human CSF2RA with a 96-well strip plate that is pre-coated with antibody specific for CSF2RA. The detection antibody is a biotinylated antibody specific for CSF2RA. The capture antibody is a monoclonal antibody from mouse and the detection antibody is a biotinylated polyclonal antibody from goat. The kit includes Human CSF2RA protein as standards. To measure Human CSF2RA, add standards and samples to the wells, then add the biotinylated detection antibody. Wash the wells with PBS or TBS buffer, and add Avidin-Biotin-Peroxidase Complex (ABC-HRP). Wash away the unbounded ABC-HRP with PBS or TBS buffer and add TMB. TMB is an HRP substrate and will be catalyzed to produce a blue color product, which changes into yellow after adding the acidic stop solution. The absorbance of the yellow product at 450nm is linearly proportional to Human CSF2RA in the sample. Read the absorbance of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Human CSF2RA in the sample.
Other Notes	Small volumes of CSF2RA elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CSF2RA purchase	MBS1756309 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the GM-CSFR (CSF2RA) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CSF2RA. The ELISA analytical biochemical technique of the MBS1756309 kit is based on CSF2RA antibody-CSF2RA antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CSF2RA antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CSF2RA. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CSF2RA elisa kit
Human GM-CSFR PicoKine ELISA Kit standard curve

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CSF2RA. It may not necessarily be applicable to this product.

NCBI GI #	238908515
NCBI GeneID	1438
NCBI Accession #	NP_001155001.1
UniProt Primary Accession #	P15509
UniProt Secondary Accession #	O00207; Q14429; Q14430; Q14431; Q16564; A7J003; A8KAM1; B4DW68; J3JS76
UniProt Related Accession #	P15509

GenBank Nucleotide #	NM_001161529.1
NCBI Official Full Name	granulocyte-macrophage colony-stimulating factor receptor subunit alpha isoform a
NCBI Official Synonym Full Names	colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage)
NCBI Official Symbol	CSF2RA
NCBI Official Synonym Symbols	GMR; CD116; CSF2R; SMDP4; CDw116; CSF2RX; CSF2RY; GMCSFR; CSF2RAX; CSF2RAY; GM-CSF-R-alpha
UniProt Protein Name	Granulocyte-macrophage colony-stimulating factor receptor subunit alpha
UniProt Synonym Protein Names	CDw116
Protein Family	Granulocyte-macrophage colony-stimulating factor receptor
UniProt Gene Name	CSF2RA
UniProt Synonym Gene Names	CSF2R; CSF2RY; GM-CSF-R-alpha; GMCSFR-alpha; GMR-alpha
UniProt Entry Name	CSF2R_HUMAN
NCBI Protein Information	granulocyte-macrophage colony-stimulating factor receptor subunit alpha; GMR-alpha; GMCSFR-alpha; CD116 antigen; GM-CSF receptor alpha subunit; colony stimulating factor 2 receptor alpha subunit; granulocyte-macrophage colony-stimulating factor receptor a
NCBI Summary for CSF2RA	The protein encoded by this gene is the alpha subunit of the heterodimeric receptor for colony stimulating factor 2, a cytokine which controls the production, differentiation, and function of granulocytes and macrophages. The encoded protein is a member of the cytokine family of receptors. This gene is found in the pseudoautosomal region (PAR) of the X and Y chromosomes. Multiple transcript variants encoding different isoforms have been found for this gene, with some of the isoforms being membrane-bound and others being soluble. [provided by RefSeq, Jul 2008]
UniProt Comments for CSF2RA	CSF2RA: Low affinity receptor for granulocyte-macrophage colony- stimulating factor. Transduces a signal that results in the proliferation, differentiation, and functional activation of hematopoietic cells. Defects in CSF2RA are the cause of pulmonary surfactant metabolism dysfunction type 4 (SMDP4). A rare lung disorder due to impaired surfactant homeostasis. It is characterized by alveolar filling with floccular material that stains positive using the periodic acid-Schiff method and is derived from surfactant phospholipids and protein components. Excessive lipoproteins accumulation in the alveoli results in severe respiratory distress. Belongs to the type I cytokine receptor family. Type 5 subfamily. 8 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Receptor, cytokine Chromosomal Location of Human Ortholog: Xp22.32 and Yp11.3 Cellular Component: integral to plasma membrane; extracellular region; plasma membrane Molecular Function: hematopoietin/interferon-class (D200-domain) cytokine receptor activity; receptor activity Biological Process: response to ethanol; cytokine and chemokine mediated signaling pathway Disease: Surfactant Metabolism Dysfunction, Pulmonary, 4
Research Articles on CSF2RA	**1.** The GM-CSF Ralpha were ubiquitously but not uniformly expressed in neurons throughout the brain and downregulation in brain in patient with alzheimenr disease.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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