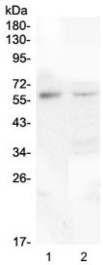
CSF1 Antibody Rabbit Polyclonal / Macrophage Colony Stimulating Factor 1 (RQ4556)

Catalog No.	Formulation	Size
RQ4556	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P09603
Applications	Western blot: 0.5-1ug/ml Direct ELISA: 0.1-0.5ug/ml (human recombinant protein)
Limitations	This CSF1 antibody is available for research use only.



Western blot analysis of CSF1 antibody in human tissues. Human placenta (lane 1) and human 293T whole cell lysate (lane 2) were resolved by SDS-PAGE under reducing conditions and probed with CSF1 antibody at 0.5 ug/ml. The antibody used is a Rabbit Polyclonal reagent. A prominent immunoreactive band is detected at approximately 60 kDa in both samples, consistent with the predicted molecular weight of Colony stimulating factor 1. The observed banding pattern supports detection of endogenous CSF1 protein in human lysates.

Description

CSF1 antibody recognizes Colony stimulating factor 1, a cytokine encoded by the CSF1 gene located on chromosome 1p13. CSF1 antibody, also referred to as Macrophage colony stimulating factor 1 antibody and M-CSF antibody, is particularly useful for studies focused on gene expression, transcriptional regulation, and differential isoform production. The CSF1 gene contains multiple exons and undergoes alternative splicing, producing membrane bound and secreted isoforms with distinct regulatory roles.

Transcription of CSF1 is tightly regulated by inflammatory stimuli, growth factors, and oncogenic signaling pathways. NF-kappaB, AP-1, and STAT transcription factors have been shown to influence CSF1 promoter activity, linking gene expression directly to immune activation and stress responses. Upregulation of CSF1 mRNA is observed in activated fibroblasts, endothelial cells, stromal cells, and various carcinoma cell lines. Because CSF1 expression often reflects microenvironmental signaling states, monitoring CSF1 protein levels provides insight into transcriptional activation and paracrine communication networks.

Alternative processing of the CSF1 transcript results in isoforms that differ in secretion efficiency and extracellular retention. Some forms remain associated with the cell surface before proteolytic release, while others are efficiently secreted. This isoform diversity enables spatially restricted signaling during embryonic development and tissue remodeling. During development, CSF1 expression contributes to establishment of tissue resident macrophage populations, particularly in liver, bone, and spleen.

Dysregulated CSF1 gene expression is associated with chronic inflammatory disease, autoimmune pathology, and several malignancies. Increased CSF1 transcription correlates with macrophage infiltration in breast, ovarian, and pancreatic cancers, making CSF1 a valuable marker of tumor microenvironment remodeling. In these contexts, CSF1 expression levels often reflect upstream oncogenic signaling events rather than merely immune cell abundance.

A CSF1 antibody rabbit polyclonal is suitable for research applications investigating gene regulation, cytokine expression profiling, stromal signaling, and tumor associated transcriptional activation patterns.

Application Notes

Optimal dilution of the CSF1 antibody should be determined by the researcher.

Immunogen

Amino acids E33-N190 from the human protein were used as the immunogen for the CSF1 antibody.

Storage

After reconstitution, the CSF1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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