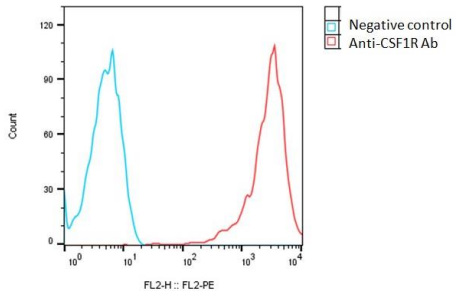
Human CSF-1R-CHO-K1 Stable Cell Line
Catalog Number: C3048

SPECIFICATIONS

Catalog Number	C3048
Cell Line Name	Human CSF-1R-CHO-K1 stable cell line
Accession Number	NM_001288705.3
Host Cell	Adherent CHO-K1
Quantity	Two vials of frozen cells ($2x10^6$ per vial)
Culture Medium	DMEM with 10% FBS, 4 μg/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

DATA

Detection of human CSF-1R expression on human CSF-1R-CHO-K1 stable cells using a monoclonal antibody specific for human CSF-1R (Accurus, Cat. #A1026), followed by staining with PE-anti human IgG antibody.



BACKGROUND

CSF1R (colony-stimulating factor 1 receptor, M-CSF receptor) is a transmembrane receptor protein, which belongs to the class III subfamily of receptor tyrosine kinases (RTKs) and is involved in several important cellular functions such as proliferation, differentiation, and survival of mononuclear phagocytes including macrophages and microglia. The ligands for CSF1R are colony-stimulating factor 1 (CSF1) and interleukin-34 (IL-34), which are cytokines secreted by various cells such as fibroblasts, endothelial cells, and stromal cells. Upon binding to its ligands, CSF1R undergoes dimerization and autophosphorylation, leading to the activation of downstream signaling pathways such as PI3K-AKT and MAPK-ERK. CSF1R is highly expressed in mononuclear phagocytes including macrophages and microglia. CSF1R is also expressed in some cancers such as breast cancer, ovarian cancer, and glioblastoma, where it plays a crucial role in promoting tumor growth, invasion, and metastasis. Inhibition of CSF1R signaling has shown promising results in preclinical studies as a therapeutic strategy for cancer treatment.

References

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