

DESCRIPTION

Cell Line Name	Human SLAMF7-CHO-K1 stable cell line
Catalog Number	C3021
Gene Sequence	NM_021181.5
Host Cell	Adherent CHO-K1
Quantity	Two vials of frozen cells (2x10 ⁶ per vial)
Culture Medium	DMEM with 10% FBS, 4μg/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

BACKGROUND

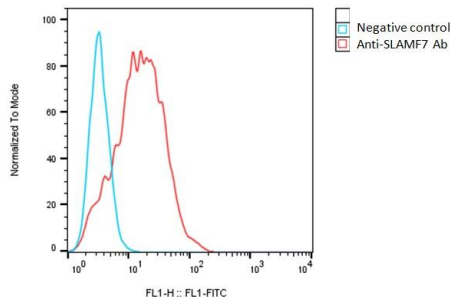
SLAMF7 (Signaling Lymphocytic Activation Molecule Family member 7), also known as CS1 (CRACC-specific antigen 1) or CD319, is a cell surface receptor protein belonging to the signaling lymphocytic activation molecule (SLAM) family. SLAMF7 is encoded by the SLAMF7 gene and is expressed on a variety of immune cells, including natural killer (NK) cells, activated B cells, monocytes, and dendritic cells. It plays a critical role in regulating immune cell activation, differentiation, and effector function. Specifically, it serves as an activating receptor on NK cells, enhancing their ability to recognize and kill cancer cells. SLAMF7 is expressed at high levels in the bone marrow, spleen, and peripheral blood cells, particularly NK cells. It is also expressed at lower levels in other tissues, including lung, liver, and kidney. SLAMF7 is highly expressed on multiple myeloma cells, a type of cancer that arises from plasma cells in the bone marrow. In addition, SLAMF7 expression has been reported in other hematological malignancies, such as acute myeloid leukemia, chronic lymphocytic leukemia, and non-Hodgkin's lymphoma. Given its role in promoting NK cell-mediated cytotoxicity against cancer cells, SLAMF7 has emerged as a potential therapeutic target in these malignancies.

THAWING AND CULTURING

- Remove the cell vial from liquid nitrogen tank and thaw cells quickly in a 37°C water bath
- Transfer the cells to a 15 ml centrifuge tube and slowly add 5 ml of pre-warmed complete growth medium
- Centrifuge the cells at 200x g for 5 min
- Remove the supernatant
- Resuspend cell pellet with 7 ml of complete growth medium and transfer cells to a T25 flask
- Incubate cells in an incubator with 5% CO₂ at 37°C
- Split the cells twice a week or as needed.

DATA

Detection of human SLAMF7 expression on human SLAMF7-CHO-K1 stable cells using a monoclonal antibody specific for human SLAMF7 (BioLegend, Cat #331817)



REFERENCES

- Cruz-Munoz ME, Dong Z, Shi X, Zhang S, Veillette A. Influence of CRACC, a SLAM family receptor coupled to the adaptor EAT-2, on natural killer cell function. *Nat Immunol.* 2009 Mar;10(3):297-305. doi: 10.1038/ni.1693. Epub 2009 Jan 18. PMID: 19151721.
- Claus M, Urlaub D, Fasbender F, Watzl C. SLAM family receptors in natural killer cells - Mediators of adhesion, activation and inhibition via cis and trans interactions. *Clin Immunol.* 2019 Jul;204:37-42. doi: 10.1016/j.clim.2018.10.011. Epub 2018 Oct 22. PMID: 30359773.

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