

DESCRIPTION

Cell Line Name	Human PSGL-1-CHO-K1 stable cell line (HuPSGL-1-CHO-K1)
Catalog Number	C3015
Gene Sequence	#AAC50061
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

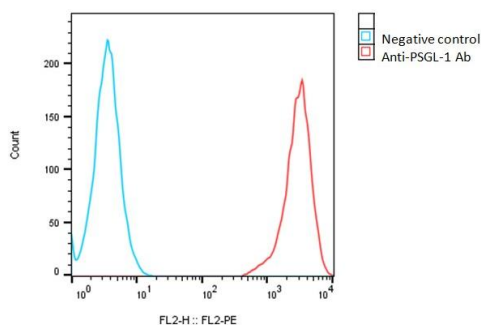
Human PSGL-1, also known as P-selectin glycoprotein ligand-1, is a glycoprotein expressed on the surface of white blood cells. It is primarily known for its role in the immune system, specifically in the process of leukocyte rolling and recruitment during inflammation. PSGL-1 functions as a binding site for selectin family proteins, such as P-selectin, E-selectin, and L-selectin, which are expressed on the surface of endothelial cells and platelets. This interaction between selectins and PSGL-1 enables the initial tethering and rolling of leukocytes along the vessel wall, which is a crucial step in the process of inflammation and immune response. PSGL-1 can be found on the surfaces of leukocytes, including neutrophils, monocytes, and T-lymphocytes. Another role for PSGL-1 in the immune system is its negative regulatory function of T cells serving as a checkpoint in immune responses. Studies have suggested that PSGL-1 may play a role in cancer progression and metastasis since high levels of PSGL-1 expression have been linked to increased angiogenesis, tumor invasion, and metastasis. As a result of its involvement in immune response and cancer progression, PSGL-1 has emerged as a potential therapeutic target for various diseases. Several drugs targeting PSGL-1 have been developed and are currently being studied in preclinical and clinical trials.

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 PSGL-1 expression on human PSGL-1-CHO-K1 stable cells using a monoclonal antibody specific for human PSGL-1 (BioLegend, Cat #328805)



REFERENCES

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- DeRogatis JM, Viramontes KM, Neubert EN, Tinoco R. PSGL-1 Immune Checkpoint Inhibition for CD4⁺ T Cell Cancer Immunotherapy. *Front Immunol*. 2021 Feb 23;12:636238. doi: 10.3389/fimmu.2021.636238. PMID: 33708224; PMCID: PMC7940186.
- Tinoco R, Otero DC, Takahashi AA, Bradley LM. PSGL-1: A New Player in the Immune Checkpoint Landscape. *Trends Immunol*. 2017 May;38(5):323-335. doi: 10.1016/j.it.2017.02.002. Epub 2017 Mar 2. PMID: 28262471; PMCID: PMC5411281.

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