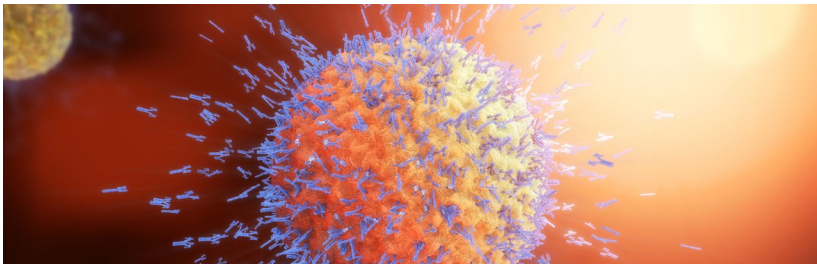
Novel monoclonal antibodies to the SERINC5 HIV-1 restriction factor for detection of endogenous and virion-associated SERINC5



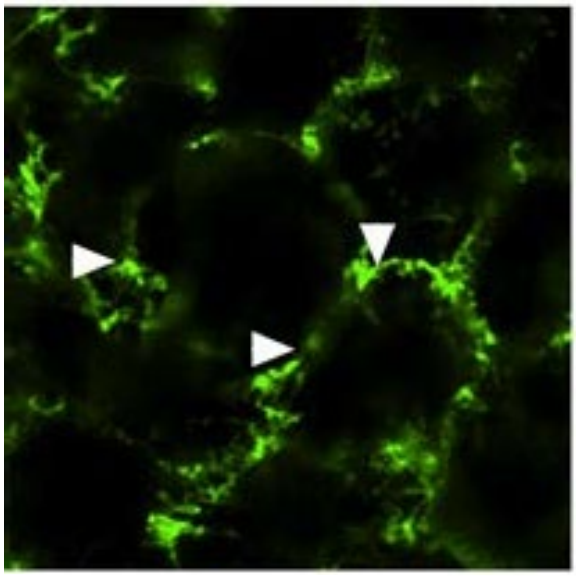
The cellular transmembrane protein serine incorporator 5 (SERINC5) has been identified as an HIV-1 restriction factor. The characterization of SERINC5 protein expression and subcellular localization has been limited to exogenously expressed SERINC5 as very few monoclonal antibodies (mAbs) of sufficient specificity and sensitivity are currently available. This technology is comprised of *novel, highly specific and cost effective* anti-SERINC5 mAbs for use in detection and quantification of SERINC5 in multiple cell lines that are used in HIV-1 research. These novel mAbs will provide valuable tools to study several mechanisms of SERINC5 action, including HIV-1 restriction, neuronal plasticity and the role of SERINC5 in lipid rafts in cancer, and could potentially be engineered to serve as therapeutic tools.

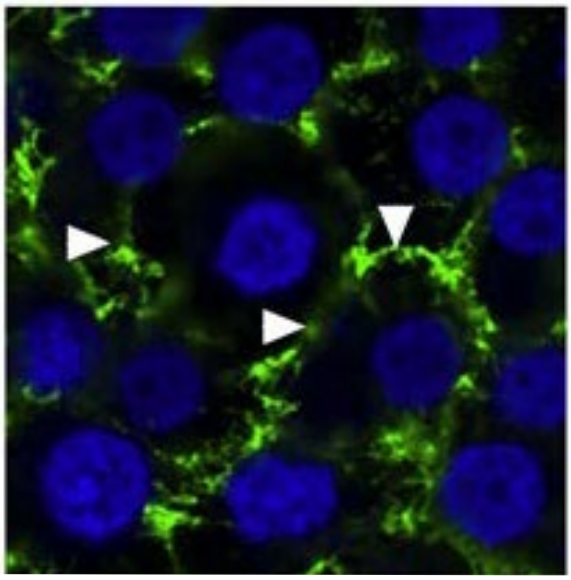
APPLICATIONS

- Identification and quantification of SERINC5 in multiple cells lines
- Detection of virion associated SERINC5
- Characterization of endogenous levels of SERINC5
- Utility in Flow Cytometry, Western Blot, and Immunocytochemistry

SOLUTION ADVANTAGES

- Highly specific to SERINC5
- Endogenous detection of SERINC5 in whole cells for localization of HIV-1
- Quantification of SERINC5 levels on the cell surface
- Multiple antibodies that recognize three SERINC5 domains
- Cost effective in comparison to other polyclonal anti-SERINC5 Abs





STATUS

Available for Cooperative Research and Development collaborations

- Hybridomas and mAbs available for licensing as research tool for laboratory research
- mAbs sequences can be made available for commercial recombinant protein expression

RELATED PUBLICATION

Sebastian Molnar, Lindsay Wieczorek, Michelle Zemil, Bianca Schulte, Elizabeth Martinez, Syna Gift, Lan Tang, Hendrik Streeck, Robert A. Gramzinski, Nelson L. Michael, Gordon Joyce and Victoria R. Polonis,*In Press, mAbs,* 2020.

CONTACT INFORMATION

For more information contact:
techtransfer@hjf.org

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6720A Rockledge Drive, Suite 100
Bethesda, MD 20817
P: 240-694-2000

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