Aberrant Expression of N-Glycolyl GM3 Ganglioside in Hepatocellular Carcinoma

Rancés Blanco*
Laboratory of Specific Recognition and Biological Activity Assays, Center of Molecular Immunology, Havana, Cuba

Case Blog

Representative microphotograph regarding the aberrant expression of N-glycolyl GM3 ganglioside (NeuGcGM3) in hepatocellular carcinoma. The preferential accumulation of NeuGcGM3 in a variety of malignant tumors, when compared with healthy tissues, became this molecule as attractive target for cancer immunotherapy. In the present sample, the expression of NeuGcGM3 was located in both cell membrane and cytoplasm of malignant cells (brown color) (Figure 1). Additionally, a strong expression of this ganglioside in perinuclear areas was evidenced. This fact could be related with the synthesis of NeuGcGM3 in the Golgi apparatus and the posterior intracellular movement of this molecule within the different subcellular compartments to the plasma membrane. The immunostaining was performed with the 14F7 monoclonal antibody, a highly specific IgG1 against NeuGcGM3. The immunohistochemical detection of NeuGcGM3 allow considering the potential selection of this patient for specific therapy with racotumomab or NGcGM3/VSSP molecular cancer vaccines. Cell nuclei are observed in blue color (Mayer’s hematoxylin). White bar=100 µm.

Acknowledgment

*Corresponding author: Rancés Blanco, Laboratory of Specific Recognition and Biological Activity Assays, Center of Molecular Immunology, 216 St and 15 Ave, Atabey, Playa, PO Box 16040, Havana 11600, Cuba, Tel: (537) 2143133; Fax: (537) 2720644, E-mail: rances@cim.sld.cu

Received August 12, 2016; Accepted August 18, 2016; Published August 22, 2016


Copyright: © 2016 Blanco R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.