Transfer to in vitro Conditions Influences Expression and Intracellular Distribution of Galectin-3 in Murine Peritoneal Macrophages

Jerka Dumića, Gordan Lauca,*, Mirko Hadžijab and Mirna Flögel

a Department of Biochemistry and Molecular Biology, Faculty of Pharmacy and Biochemistry, University of Zagreb, Ante Kovačića 1, 10000 Zagreb, Croatia. Fax: +385 1 4856 201. E-mail: glauc@public.srce.hr

b Division of Molecular Medicine, Institute “Ruder Bošković”, Bijenička cesta 54, 10000 Zagreb, Croatia

* Author for correspondence and reprint requests

Z. Naturforsch. 55c, 261 – 266 (2000); received November 25/December 27, 1999

Galectin-3, Cellular Stress, Peritoneal Macrophages

Galectin-3 is a β-galactoside-binding lectin that has been implicated in numerous physiological processes, including mRNA splicing, cell differentiation, tumor metastasis and the stress response. We have studied effects of transfer of resident murine peritoneal macrophages to in vitro conditions on galectin-3 in different cell compartments. Galectin-3 was purified by immunoprecipitation with rat monoclonal antibody M3/38, and analyzed by immunoblotting using the same antibody. Transfer to in vitro conditions nearly doubled the total amount of galectin-3 in cells, and caused significant alterations in its intracellular distribution, indicating that galectin-3 is involved in the adaptation of peritoneal macrophages to in vitro conditions.