

We have found that median content of CD39<sup>+</sup> Treg cells was significantly decreased in HA<sup>+</sup> fraction compared with HA<sup>-</sup> subset ( $p < 0.05$ ), though higher density of CD39 expression was observed in HA<sup>+</sup> subset ( $p < 0.05$ ) (Fig. 3).

We did not identify any significant difference in number in of freshly isolated HA<sup>+</sup> and HA<sup>-</sup> CD4<sup>+</sup>CD25<sup>+</sup> T cells with intracellular expression of IL-10 (0.8% and 1.5% respectively). Since CD4<sup>+</sup>CD25<sup>+</sup> population is known to show increased expression of effector/memory markers (CD45RA/CD45RO), it was of interest to analyze these surface markers on Treg cells with different expression of active isoforms of CD44. As it turned out, there were no differences between HA<sup>+</sup> and HA<sup>-</sup> subsets by these markers (Fig. 5, 6). On the basis of our data we propose that in norm circulating natural Treg cells contain the subset capable of binding high molecular hyaluronan, i.e. expressing an activated form of CD44. Such cells are in a state of readiness to control possible emergence of immune autoreactivity. Though HA<sup>+</sup> subset contains less FoxP3<sup>+</sup> Treg cells than HA<sup>-</sup> counterpart CD39 expression on them is higher, that indicates their suppressor potential. Our approach to assessment of Treg cell activity could be useful for studying autoimmune disease and cancer development.

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#### Способы регистрации особенностей экзоцитоза при запуске сигнальной трансдукции

Недостаточно исследованной стадией экзоцитоза является акт слияния гранулярных и плазматических мембран с последующим выбросом содержимого гранул во внеклеточное пространство. Для исследования указанной проблемы были апробированы ряд методических приемов регистрации экзоцитоза на клетках асцитной карциномы Эрлиха (АКЭ) и перитонеальных макрофагах мышей.

**Ключевые слова:** асцитной карциномы, экзоцитоз, сигнальная трансдукция

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#### How to register the features of exocytosis at start signal transduction

Insufficiently investigated stage of exocytosis is the act of merging granular and plasma membrane with subsequent release of granule contents into the extracellular space. To investigate this problem have been tried a number of instructional techniques registration exocytosis on cells of Ehrlich ascites carcinoma (EAC) and peritoneal macrophages of mice.

**Keywords:** ascites, exocytosis, signal transduction

Изучение механизмов экзоцитоза в контексте условий, способствующих малигнизации клеток, является актуальной проблемой онкологии. В связи с чем, изучение связи механизмов экзоцитоза в