**The effect of willow fodder feeding on immune cells populations in the blood and milk of late-lactating dairy goats**

**H. Muklada 1,2, H. Voet2, T. Deutch1, M. Zachut3, G. Kra3, S.E. Blum4, O. Krifuks4, T.A. Glasser5, J.D. Klein1, R. Davidovich-Rikanati6, E. Lewinsohn6, S.Y. Landau1,\***

**1 Department of Natural Resources, Institute of Plant Sciences, Agricultural Research Organization, Volcani Center, 68 Hamakabim Rd, Rishon Le Ziyyon, 7505101, Israel**

**2 Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem, Rehovot, 76200 Israel.**

**3 Department of Ruminant Science, Institute of Animal Science, Agricultural Research Organization, 68 Hamakabim Rd, Rishon Le Ziyyon, 7505101, Israel**

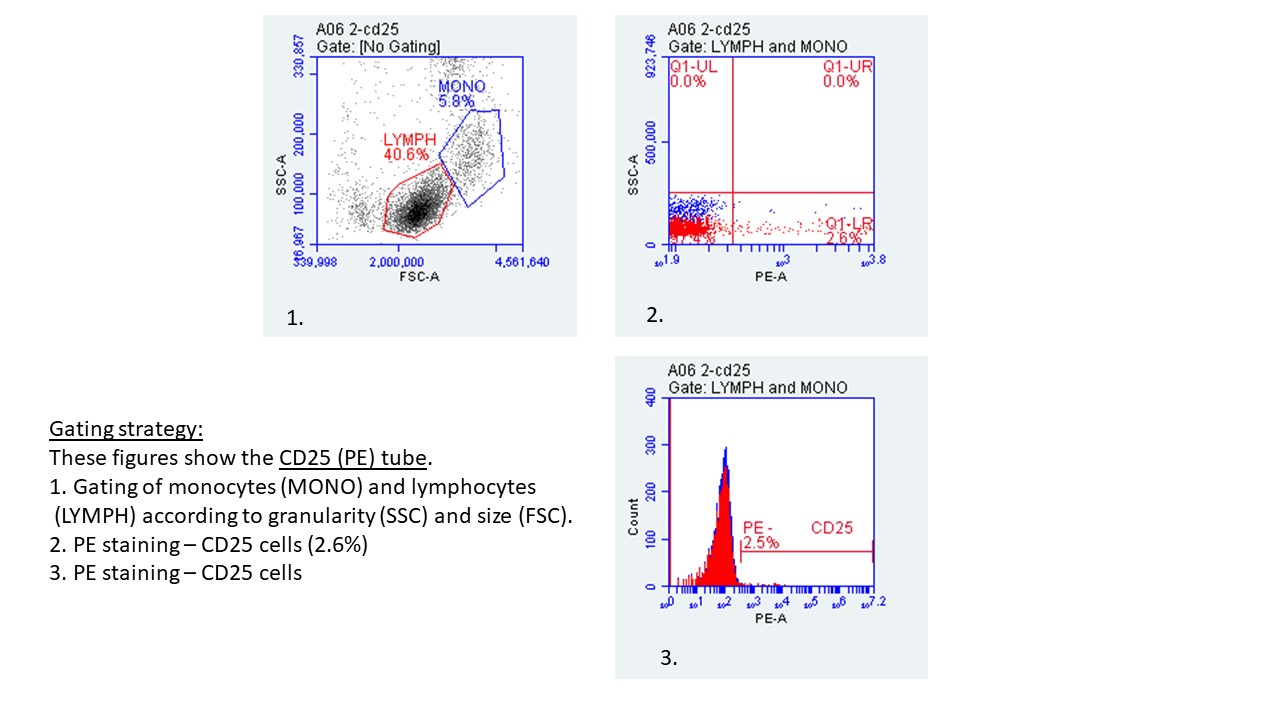
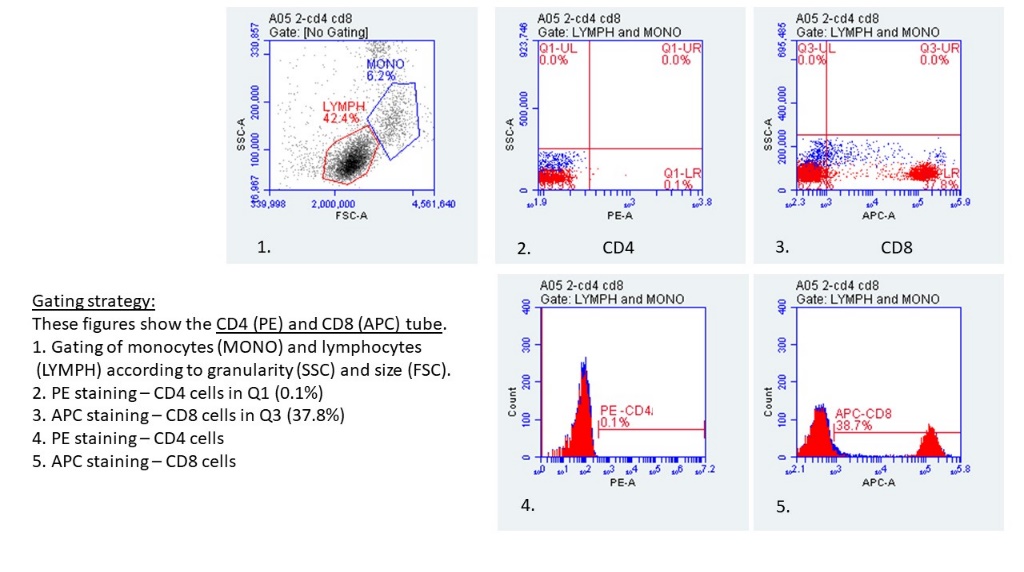
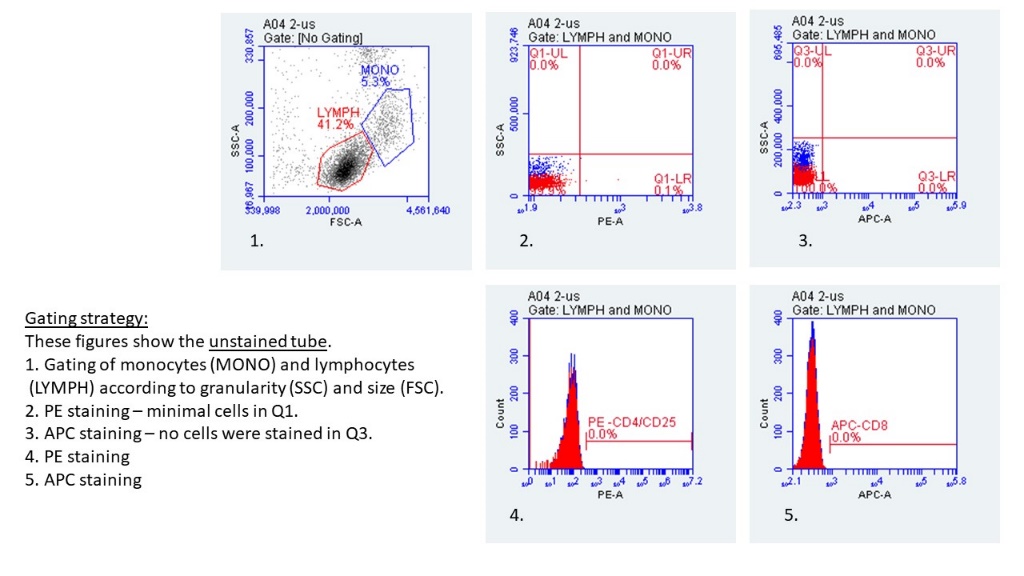
**4 National Mastitis Center, Division of Bacteriology, Kimron Veterinary Institute, P.O.Box 12, Bet Dagan 50250, Israel**

**5 The Ramat Hanadiv Nature Park, P.O. Box 325, Zikhron Ya'akov, 3095202, Israel**

**6 Institute of Plant Sciences, Newe Ya’ar Research Center, Agricultural Research Organization, Ramat Yishay, 30095, Israel**

**\* Corresponding author:** S.Y. Landau. E-mail: vclandau@agri.gov.il

**Table S1**: Gating strategy for goat blood leucocytes with Phycoerythrin (PE) and allophycocyanine (APC) as antibody-staining agents.



**Table S2**: Plant secondary compounds in willow fodder offered to goats as determined by calculation of areas under the liquid chromatography / time-of-flight / mass spectrometry peaks (artificial units based on peak area of exact mass counts detected by time-of-flight / mass spectrometry): means ± SE of 3 last days of experiment.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Compound | Method | Concentration (ug/gr DM) |
|  |  |  |  |
| salicortin\_5.4 | salicylate glucoside | RT, EMM | 33 848 097 ± 6 680 127 |
| Tremulacin | salicylate glucoside | RT, EMM | 7 465 088 ± 3 075 609 |
| HCH salicortin | salicylate glucoside | RT, EMM | 835 093 ± 224 149 |
| Lasiandrin | salicylate glucoside | EMM | 211 813 ± 80 093 |
| Salicyloyl tremuloidin | salicylate glucoside | RT, EMM | 152 183 ± 49 768 |
| Salicylic acid glucoside | salicylate glucoside | RT, EMM | 131 653 ± 33 800 |
| Salicortin-6.5 | salicylate glucoside | RT, EMM | 76 751 ± 30 465 |
| Populoside C | salicylate glucoside | EMM | 61 132 ± 9 636 |
| Chaenomeloidin | Phenolic glucoside | EMM | 1 004 573 ± 336 334 |
| Syringin | phenolic acids\_glucoside | EMM | 233 415 ± 9 264 |
| Coumaric acid\_Glucoside | phenolic acids\_glucoside | EMM | 108 963 ± 10 413 |
| 3-p-coumaroylquinic acid derivative | Phenolic acids | RT, EMM | 2 180 392 ± 907 119 |
| Chlorogenic acid derivative | Phenolic acids | RT, EMM | 712 380 ± 234 835 |
| Rosmarinic acid | Phenolic acids | RT, EMM | 150 001 ± 53 587 |
| Gallocatechin | Phenolic acids | RT, EMM | 143 383 ± 10 209 |
| Fumaric acid | Organic acid | RT, EMM | 508 716 ± 71 103 |
| Fragilin\_5 | Glycoside | RT, EMM | 452 311 ± 97 945 |
| Fragilin\_5.2 | Glycoside | RT, EMM | 283 216 ± 36 522 |
| Trichocarposide | Glucoside coumaryl | RT, EMM | 1 684 446 ± 350 822 |
| Deltoidin | Glucopyranoside | EMM | 40 498 ± 16 165 |
| Kaempferol\_Glucoside | flavonol glucoside | RT, EMM | 2 294 674 ± 298 811 |
| Rutin | flavonol | RT, EMM | 185 859 ± 48 928 |
| Epicatechin | flavonoids | RT, EMM | 1 688 097 ± 212 687 |

\* Identification Method (RT = retention time; EMM: exact molecular mass)