



**Regenerus Laboratories**  
**Aero 14, Kings Mill Lane**  
**GB-RH1 5JY Redhill, Surrey**  
**Fax:**

Sample Report 4M4004 **M/W:** W

**Requested** 22.08.2018  
**APNr** 4095

**Height**  cm    **Weight**  kg    **Body Mass Index**     **Reported** 24.08.2018

**ANAMNESE**

Keine Angaben

**RESULTS OVERVIEW**

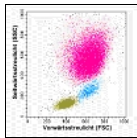
NK-function normal.

The best increase in basal expression of the CD69 activation marker in vitro is with immune fungus Shitake. The NK function can be additionally supported with a micronutrient therapy.

Kind Regards

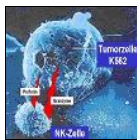
Dipl.Biol. B. Knabenschuh /Dipl.Biol.W.Mayer

**IMMUNE STATUS**



**Immune Status**

NK-Zellen (relative)                      8                      % Lympho                     



**NK Cell Function**

NK-Select®					
NK-CHECK®					
NK/Ctx: Basal	20	% K562	> 20	<input type="text"/>	
NK/Ctx: IL-2 Stimulation	55	% K562	> 35	<input type="text"/>	
NK Cells CD 69 basal	3	% NK	< 8	<input type="text"/>	
NK Cells CD 69 IL2	38	% NK	> 35	<input type="text"/>	
MODULATOR 1	Arabinoxyl/Biabr				
NK Cells CD 69 Modulator 1	2	% NK		<input type="text"/>	
MODULATOR 2	Immupilz Shita				
NK Cells CD 69 Modulator 2	4	% NK		<input type="text"/>	
MODULATOR 3	Lektinol				
NK Cells CD 69 Modulator 3	2	% NK		<input type="text"/>	
MODULATOR 4	Vitamin C				
NK Cells CD 69 Modulator 4	2	% NK		<input type="text"/>	

**EXPLANATION**

Natural Killer Cells (NK cells) are among the most important immune barrier against viral (intracellular) infections and abnormal (malignant) cells. These cells by circulating permanently through the whole organism function as the bodies "immunesurveillance". On contrary to the antigen-specific T cell compartment they spot altered cells directly killing them immediately, without the need of prior identification and antigen specific mobilisation.

The number of NK cells in peripheral blood varies from day to day, from morning to evening. Absolutely healthy persons can

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have high and also low numbers since resting NK cells may adhere to the surface of peripheral blood vessels. Extremely low numbers are not found since persons without or almost without NK cells cannot stay alive.

With advancing age the number of circulating NK cells remains unchanged but their activity progressively goes down.

Decreased NK activity correlates strongly with increased risk of infection, recurrence of latent infections (herpes group) and prolonged and more severe infections. Also with increased risk of tumor development and poorer prognosis in active cancer disease. Physical and psychological stress both depress NK activity.

The function of NK cells is regarded to be a much more important measure of immune competence than the the number of circulating cells. Low NK activity is found in chronic systemic diseases, chronic inflammation, physical inactivity or overtraing syndrome als well (glutamine deficit), chronic stress, hypercortisolism, etc.

The most effective natural NK enhancing method is regular physical activity (preferably aerobic endurance training) and optimal micronutrient/antioxidant support. Growth Hormone (hGH), DHEAS, some amino acids (arginine, ornithine, GABA, glycine, glutamine) by enhancing hGH secretion, antioxidants by activating the cells are very effective means of improving NK cell activity. Because of the primary importance of NK function in disease prevention it seems also logical in disease states to raise low activity with NK-specific immune modulator substances. Among the most effective modulators are chinese mushrooms like Shiitake, Maitake, Reishi; mushroom specialities like AHCC (active hexose compound) or MGN-3 (Biobran). Vitamin C, antioxidants, glutathione, curcumine, resveratrol can be successful too.

In the so-called NK - Select assay these modulators can be tested in vitro to find the individually best working substance. The standard test panel includes MGN-3, chinese mushroom extract and vitamin C.

## **BERATUNG ZUR PRODUKTEMPFEHLUNG:**

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### **PRODUCT RECOMMENDATIONS**

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