



Manual preparation and collection of specimens for Natural Killer (NK) cells count

OBJECTIVE

This manual is intended to provide a guide for the user in the selection of test items, type specimens and delivery of the specimens correctly.


CONTACT INFORMATION

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TESTING	Natural killer (NK) cells count
OBJECTIVE	To detect the amount of Natural killer (NK) cells in Peripheral blood
METHOD	Direct immunofluorescence by Flow cytometry
CONTAINER	<p>Blood collection tube contains EDTA (Purple top)</p> 
SPECIMEN	2 tubes of EDTA - whole blood , 3 ml / each tube
PATIENT PREPARATION	Patients should not receive immunosuppressant for at least 1 month
COLLECTION AND TRANSPORTATION	<ol style="list-style-type: none"> 1. Draws blood from veins volume 6 mL and put into 2 blood collection tubes with EDTA, 3 mL per each tube. 2. Convert tube gently for mixing blood and EDTA together. 3. Keep blood after drawing at room temperature (20 - 25 degree Celsius). 4. Send to laboratory within 6 hours after drawing the blood. (Note: In case with keeping blood over 6 hours, please keep this blood in 4 °C and send to laboratory within 24 hours after drawing the blood) 5. Complete all information of the request form. 6. Call laboratory to process blood delivery. Please attach request form and sample for testing to officer.
SPECIMEN REJECTION	<ul style="list-style-type: none"> • Unlabeled or Sample labeled with more than one name • Requisition and Sample Labeling mismatch • Incorrect container or preservative that would invalidate results • Specimens kept over 6 hours after blood draws that would affect the results • Sample not suitable for analysis e.g. clotting, gross hemolysis, gross lipidemia and frozen • Inappropriate patient preparation e.g. patient receiving drug immunosuppression within 1 month • Improper transportation e.g. keeping specimen on ice during transportation



SERVICE HOURS	Regular hours of operation <ul style="list-style-type: none">Monday to Saturday 09:00 am to 05:00 pmSunday and public holidays Closed
TURNAROUND TIME	3 working days
RECEIVE THE RESULTS	<ul style="list-style-type: none">Fax or E-mail as request in request formOriginal report form will be enclosed and send to patient by messenger
ANALYSIS UNITS	Report as Absolute count (cells/ μ L)
REFERENCE VALUE	<ul style="list-style-type: none">Male 140 – 1,103 cells/μLFemale 96 – 998 cells/μL
REFERENCES	<ul style="list-style-type: none">Product Description No. 8/00 23-3531-02, Becton DickinsonChng WJ, Tan GB, Kuperan P., Establishment of adult peripheral blood lymphocyte subset reference range for an Asian population by single-plate form flow cytometry : influence of age, sex, and race and comparison with other publish studies, Clin Diag lab Immunol.2004 Jan;11(1):168-73.

Example of Request form



Wincell Research Co., Ltd

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Tel: (+66)2-670-0731-2, Fax: (+66)2-670-0733, E-mail: Lab@wincellresearch.com

FM-WC-057

Laboratory Request Form

Patient information	Specimen information
Name : <u>Win Research</u>	Collection date : <u>15/06/15</u> Collection time : <u>13.00</u>
Age : <u>35</u> Sex : <u>Female</u> HN : <u>15015</u>	Collection by : <u>Alis Natcha</u>
Hospital/Clinic : <u>Win Clinic</u>	Specimen types
Ordering Physician : <u>Dr. Wincell Empire</u>	<input checked="" type="checkbox"/> EDTA – blood <input type="checkbox"/> Heparinized - blood
Diagnosis : _____	<input type="checkbox"/> EDTA – plasma <input type="checkbox"/> Heparinized - plasma
	<input type="checkbox"/> Serum
	<input type="checkbox"/> Other : _____

Laboratory Testing

Special test	Flow cytometry*	Cell culture**
<input type="checkbox"/> Natural cytotoxic activity (NK activity)	<input type="checkbox"/> Stem cell count (CD34 / CD105)	<input type="checkbox"/> Win-K cells (NK / CIK culture)
<input type="checkbox"/> Telomere length	<input type="checkbox"/> Hematopoietic stem cell count (CD34)	<input type="checkbox"/> DC cancer vaccine
<input type="checkbox"/> HMW Adiponectin	<input type="checkbox"/> Mesenchymal stem cell count (CD105)	Other
<input type="checkbox"/> VEGF-A***	<input checked="" type="checkbox"/> NK cell count (CD3 / CD16+56 / CD45)	<input type="checkbox"/> Other : _____

Remark:

- * Required HIV, HBsAg and HCV Profiles
- ** Required Complete Blood Count (CBC) Profile
- *** Research use only

Customer information	For Wincell Research laboratory use only		
Request date : <u>15/06/15</u>	List	Correct	Incorrect
Request time : <u>13.30</u>	<input checked="" type="checkbox"/> Completed request form	<input type="checkbox"/>	<input type="checkbox"/>
Report pick-up :	<input type="checkbox"/> Specimen types	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Tel _____	<input checked="" type="checkbox"/> Specimen is in good condition	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> E-mail <u>Lab@example.com</u>	Decision : <input type="checkbox"/> Accept <input type="checkbox"/> Reject		
<input type="checkbox"/> Fax _____	Comment : _____		
<input type="checkbox"/> By self	_____		
Send by : <u>Alis Natcha</u>	Signature : _____		
(_____)	(_____)		
Date : <u>15/06/15</u>	Date : _____		
Time : <u>13.30</u>	Time : _____		



Example of NK cell count report



Wincell Research Co., Ltd
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Sathorn rd, Yannawa, Sathorn, Bangkok 10120
Tel: 02-670-0731-2 Fax: 02-670-0733
Email: info@wincellresearch.com

Name: Wincell Research
Hospital/Clinic: Win Clinic
Request by: Dr. Wincell Empire
Request date: 15 June 2015
Received date: 15 June 2015
Report date: 17 June 2015
Wincell HN: 15-1386

Age: 35 Sex: F
HN: 15015
Request time: 13.30
Received time: 14.30
Report time: 13.55
Wincell LN: WNK15132

Laboratory Report						
Test	Result	Unit	Flag	Reference range	Specimen	Method
NK cell count (CD16+/CD56+/CD3-)	= 10.0% x 1,636* = 164	cells/ μ L cells/ μ L	N	Male: 140-1,103 cells/ μ L Female: 96-998 cells/ μ L	EDTA-Blood	Flow cytometry
Comment: * Total Lymphocytes (cells/ μ L)						

*** End of Report ***

Reported by :

(Alisa L., M.Sc.)

Approved by :

(Suphakit K., Ph.D.)
(MT.5947)

ห้องปฏิบัติการรับรองผลการทดสอบเฉพาะรายงานฉบับจริงหรือสำเนารายงานที่มีข้อมูลครบถ้วนทั้งฉบับเท่านั้น