

# Uhlelo Lwe-KOVA Eliyipulastiki lalokhu Ukuhlaziya Komchamo Okujwayelekile

## I-KOVA PLASTICS UKUHLAZIYA KOMCHAMO OKUJWAYELEKILE

Ukuhlaziya komchamo, njengoba kwensiwa manje ezindaweni eziningi zokucwaninga, kwensiwa kusetshenziswa izinqubo ezingajwayelekile. Lezi zinqubo ziayahlukahluka elaborethri ngelaborethri futhi ngokuvamile indlela yangempela ngaphakathi kwelaborethri iyahluhahluka kuye ngomantu owenza izivivinyo.

Imithombo yokuhluhahluka ekuhlaziyiweni komchamo okuvamile:

- umthamo womchamo oguuguqukayo
- izimo ezaahlukene ze-centrifugal zidala amanani ahlukahlukene e-sediment ukuze kuhlwae nge-microscope
- amanan ahlukene e-sediment eqowqe futhi amiswe ngaphansi kwengilazi yekhava ukwehluka kwamasu phakathi kwabantu abenza inqubo.

Ukuze kumiswe inqubo yokuhluhlu umchamo, umthamo wesampula ongashintshi, amandla aphakathi nendawo kanye nevolumu yenlhenga kufanele kugcinwe, futhi kusetshenziswe indlela engaguquku kuhluhlu nge-microscope kanye nokubikwa kwemiphumela kufanele kusetshenziswe. Uhlelo Lwe-KOVA Oluyipulastiki lufinylela lokhu kumiswe ngokunciphisa ukuhluhahluka, okuhlanganisa ukuhluhlu kwamasu phakathi kochwephesheshe.

## UKUSETSHENZISWA OKUHLOSIWE

Uhlelo Lwe-KOVA Eliyipulastiki luhihlinzeka ngenqubo nemikhqizo engasetshenziswa ukukhqiqa imiphumela esezenge ni ngesikhathi sokuhluhlu umchamo. Ukulawulwa kwevolumu, ukungaguguquku kanye nenhlanzeko kunekeza kusukela ekuqqoweni nasekuthutheni kuya ekuhlaziyiweni kwenhlabathi yomchamo nge-microscope. Izilawuli ezijwayelekile zingasetshenzisewa ukulawula ikuhluhlu ephelele yezingqubo zokuhluhlu eziponakalayo, amakhemikhali kanye ne-microscope.

## IZINZUZO

Uma inqubo echazwe ilandelwa ngokungaguguquku, umuntu angasebeniza amanani atholwe ekuhlaziyi umchamo ngokuzethembu. Odokotela bangalandela inqubekela phambili kanye nokwelashwa kweziguli ngokuqiniseka; noma yiziphi izinguquku ezenzeka ngaphandle kwemingcele emincane evunyelwa yilesi simiso zingabheku njengezibalulekile.

Amalaborethri angase aqathaniwe futhi iziguli ezibhekiwe zingenziwa ukuhluhlu umchamo emalaborethri ahlukene ngemiphumela efanayo.

## I-KOVA PLASTICS UHLELO KANYE NEZINTO ZOKUSEBENZA

Inombolo Yomkhiqizo Incazel Yomkhiqizo

Izinquomo  
Ngephakheji  
Ngayinye

### KOVA Plastics System Super Pac 1000 w/Caps

100 KOVA Plastics Glasstic Slide 10 (enemigodi engu-10),  
1000 Ama-Petter E-KOVA Ayipulastiki angu-1000, Amashubhu Amakhulu E-KOVA Ayipulastiki angu-1000,

Izinkomisi Ze-KOVA Eziyipulastiki ezingu-1000

**KOVA Plastics System Super Pac 1000** 100 KOVA Plastics Glasstic Slide 10 (enemigodi engu-10),

1000 Ama-Petter E-KOVA Ayipulastiki, Amashubhu Amakhulu E-KOVA

Ayipulastiki angu-1000

### I-KOVA Plastics System Super Pac 1000 enamaGridi

100 KOVA Plastics Glasstic Slide 10 (enemigodi eyi-10) w/Grids,  
1000 Ama-Petter E-KOVA Ayipulastiki, Amashubhu Amakhulu E-KOVA

Ayipulastiki angu-1000

### I-KOVA Plastics System Pac II

100 KOVA Plastics Slide II (enemigodi eyi-4),  
Ama-Petter E-KOVA Ayipulastiki angu-400, 400 KOVA Plastics Super Tubes

### I-KOVA Plastics System Value Pac 500

50 KOVA Plastics Glasstic Slide 10 esinamagridi  
500 KOVA Plastics Economy Tubes, 100 Izivalo Eziyipulastiki Ze-KOVA

### I-KOVA Plastics System Value Pac 500 enamaGridi

50 KOVA Plastics Glasstic Slide 10 (enemigodi eyi-10),  
500 Ama-Petter E-KOVA Ayipulastiki, 500 KOVA Plastics Economy Tubes

### I-KOVA Plastics KO-LEC-PAC

500 KOVA Plastics Super Tubes, 500 Izivalo Zepulasitiki Ze-KOVA,  
500 KOVA Plastics Cups, 500 Amalebulu kanye Namashalofu Okuthutha Ayi-5

### I-KOVA Plastics Slide II eneGridi

yokuhluhlu ezinganisa;

100 x 4 imithombo yamaslayidi; ngesikwele segridi esingu-1mm x 1mm

ngasinye

### I-KOVA Plastics Slide II

100 x 4 amaslayidi wemithombo

### I-KOVA Plastics Glasstic Slide 10

Amaslayidi angu-100 x 10 wemithombo nge-Acrylic ecweble

### I-KOVA Plastics Glasstic Slide 10

500

50 x 10 kahle amaslayidi nge-crystal clear Acrylic

### I-KOVA Plastics Glasstic Slide 10 eneGridi

100 x 10 amaslayidi wemithombo ku-Plexiglas\* ecweble kahle enomthamo amagridi; igumbi ngalinye likukethe u-6.6 µl futhi lino-3 mm x 3 mm igridi enezigaba ezhinle ezingu-0.33 mm x 0.33 mm. Inqubo yokuhluhlu ihlanganisa indlela yokuhluhlu amaseli nge-µl ngayinye yamasampuli esiguli.

## I-KOVA PLASTICS UHLELO KANYE NEZINTO ZOKUSEBENZA - IYAOHUBEKA

Inombolo Yomkhiqizo

Incazel Yomkhiqizo

Izinquomo  
Ngephakheji  
Ngayinye

### Ishubhu Elkhulu Le-KOVA Eliyipulastiki

Iqoqo eilahluhlu elingabulwanga amagiwane elilahluhlu kanye ne-centrifuge amashubhu enziwe ngomthelela omkhulu, ipulasitiki enganqamuki engapheli ukueheku noma ukupuhuka ngesikhathi se-centrifugation.

### I-KOVA Plastics Economy Tube

Njengangenhla kodwa kupulasitiki we-styrene ongokongayo, organqamuki.

### I-Petter Ye-KOVA Eyipulastiki

I-pipette yokudulisa ipulasitiki elahluhlu eklanyelwe ukugcina i-1.0 ml yomchamo ngemuva kwe-centrifugation. Ithiphu yokukhiya eyingqayizive inikeza indlela yokuhluhlu ukungcola esivinyathelo esisodaw.

### Isivalo Se-KOVA Esiyipulastiki

Kunconye ukuvimbela ukuchitheka ngesikhathi sokuthutha, njengoba kanye nokungcoliswa kwe-aerosol ngesikhathi se-centrifugation.

### I-KOVA Plastics Decanting Rack

Irakhi engu-1

I-Rack yokuhluhlu ama-specimen angaba ngu-10.

## UKUQOQWA KWESAMPULA KANYE NEZOTHUTHO

I-KOVA Plastics System KO-LEC-PAC inconywa ukuthi isetshenziswe ngale ndlela elandelayo:

- Lebula Ishubhu Le-KOVA Eliyipulastiki bese unikeza isiguli u-3 ½ oz. KOVA Plastics Cup.
- Yala isiguli ukuthi siquoq umchamo ovalekile Ezikomishini Zepulasitiki Ze-KOVA.
- Dulisa isifanekiso somchamo sisuka Ezikomishini Zepulasitiki Ze-KOVA siye ku-Ishubhu Le-KOVA Eliyipulastiki, sigcwališe size sifinylele ku-12 ml yokuthweswa iziqu.
- Vikela i-Isivalo Se-KOVA Esiyipulastiki kuyishubhu Le-KOVA Eliyipulastiki futhi uyibeke ku-KOVA Plastics Transport Rack ukuze ihambu futhi igcinvwe.
- Zilethe elaborethri ngokushesa ngangokunokwenzeka, mhlawumbe phakathi namahora amabili, kodwa kungakapheli amahora amane ngemva kokuoqwa kwsifanekiso.

## INQUBU YOKUHLOLA UHLELO LWE-KOVA PLASTICS

- Hlola amandla adonsela phansi athile ngokubeka iconsi elilodwa noma amabili omchamo ku-refractometer enxeshezelwa ngezinga lokushisa noma sebenzisa umugqa wokuhluhlu wekhemistri oqukethe iparamitha ethile yamandla adonsela phansi bese urekhoda imiphumela.
- Usebenzisa imichilo yokuhluhlu i-reagent, yenza ukuhluhlu kwamakhemikhali ngokwemiyale yomkhiqizi. Rekhoda imiphumela ebheliwe. Izilawuli kufanele zifakte equebeni ngalinye ukuze kuqinisekiswe ukulawulwa kwekhwalithi okufanele kwezingqubo zokuhluhlu eziponakalayo, zamakhemikhali kanye ne-microscope.
- I-Centrifuge Ishubhu Le-KOVA Eliyipulastikis (ngalinye likukethe u-12ml wesifanekiso somchamo noma Isilawuli) ku-centrifugal force ehlobene (rcf) engu-400 imizuzu emihlanu; cishe ama-revolution angu-1500 ngomzuzu (rpm) nge-rotor engama-intshi angu-6. Ifomula esetshenzisive:

$$rcf = 28.38 (R) \left( \frac{N}{1000} \right)^2 R = i\text{-radius ve-rotor}$$

$$N = i\text{-zinguquko ngomzuzu}$$

**Irediyasi ezungezayo yibanga elikalwa ukusuka ku-axis  
yerotor ukuya ekugcineni koketshezi olungaphakathi  
kwamashubhu ebangeni elikhulu elivundlile ukusuka ku-axis**



- Susa amashubhu E-KOVA Ayipulastiki ku-centrifuge, ugapele ukuthi ungaphazamisi noma ukhiphe i-sediment.

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5. Faka I-Petter Ye-KOVA Eyipulastiki kuyishubhu Le-KOVA Eliyipulastiki. Phusha I-Petter Ye-KOVA Eyipulastiki phansi kweshubhu Le-KOVA Eliyipulastiki iezihlale iqinile (ekuphothulen okungu-1ml).
6. Nciphisa futhi ulahle u-11ml kuyishubhu Le-KOVA Eliyipulastiki kuyilapho I-Petter Ye-KOVA Eyipulastiki ikhiyiwe endaweni ye-lshubhu Le-KOVA Eliyipulastiki. Lokhu kuzogcina u-1ml wenhlenga yomchamo ezansi kweshubhu Le-KOVA Eliyipulastiki.
7. Hoxisa I-Petter Ye-KOVA Eyipulastiki kuyishubhu Le-KOVA Eliyipulastiki.
8. Engeza iconsi elilodwa lebala ku-1ml yenhlabathi yomchamo. Phawula: I-Stain iwusizo lokusiza ekweliukaniiseni amaseli ezakhi futhi akuphoqelekile.
9. Usebenzia i-Petter Ye-KOVA Eyipulastiki, misa kancane i-sediment kanye nebala kuze kuge yilapho kutholakala ingxube ye-homogeneous.

#### **INQUBO YOKUHLOLA UHLELO LWE-KOVA PLASTIC - lyaqhubeka**

10. Hoxisa isampula elincane lengxube yenhlabathi yensika yomchamo ngokucindezela isibani se-Petter Ye-KOVA Eyipulastiki.
11. Dluliseda ingxube yenhlabathi ku-KOVA Plastics Slide ngokubeka iconsi elilodwa endaweni esikiwego yegumbi ngalinye. Lapho amagumbi 1-5 esemggeni ongaphezelu, inothi isekhoneni eliphezelu kwsokunxele lamakamelo, lapho amakamelo 6-10 esemggeni ongaphezelu, inothi isekhoneni eliphezelu kwsokudla lamakamelo. Igumbi lizogcwala isenzo se-capillary. Gwema ukuthinta umgoqo omise okwe-V phakathi kwamakamelo ngenkathi ukhipha uketshezi. Ukuma okungalungile ekunikezeni kungase kubangele ukuchichima ukusuka kwelinje igumbi kuya kwelinje.
12. Susa noma iyiphi isampula eyeqile esele endaweni evulekile yokuhlela ngokuthinta unqenqema oluvulekile ngezinto ezimuncayo.
13. Beka i-KOVA Plastics Slide esiteji esincane ngaphansi kwelensi yomgommo.
14. Skena igumbi lesilayidi ngaphansi kokukhulisa amandla aphansi (i-eye piece engu-10X/10X injongo) ukuze ubale abalingisi. Bala zonke ezinje izinto ezakhwiwe ngaphansi kokukhulisa amandla aphezelu (i-eye piece engu-10X/40X injongo). Ungaphinde usebenzia imikhiqizo ye-KOVA Plastics.

Ukuze uthole ukhlaziya kwsilayidi esiGrijisiwe, bheka INQUBO YOKUHLOLA UHLELO LWE-KOVA PLASTICS - IGRIDDED

#### **AMANANI ALINDELWE - IMICROSCOPY†**

1+ = Kuphawulwe ifomu ngezikathu

ezithile

2+ = Kuphawulwe kuzo zonke izinkambu

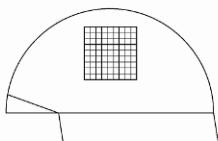
izinkambu

3+ = Amanani amakhulu kuzo zonke

4+ = Inkambu egcwele

Hlaziya	Okujwayelekile	Okungajwayelekile	Ukubika Imiphumela
WBC	0-5/HPF	> 5/HPF	Izinombolo/HPF
I-RBC	0-3/HPF	> 3/HPF	Izinombolo/HPF
Amaseli Epithelial		Noma yikuphi (ngaphandle kwalokho squamous)	Izinombolo/HPF
Amakristalu	0-3/HPF (okungeyona i-pathogenic)	> 3 Noma yikuphi okungajwayelekile	Izinombolo/HPF
Imvubelo		Noma yikuphi	1+ kuya ku-4+/HPF
Ama-Trichomonad		Noma yikuphi	1+ kuya ku-4+/HPF
Abalingisi		Noma yikuphi ikakhulukazi > 1 i-hyaline cast/LPF	Izinombolo/LPF
Amagciwane	0-5/HPF	> 5/HPF	1+ kuya ku-4+/HPF
Amafutha	0	Imizimba yamafutha amise okweganda noma kungekho mafutha	1+ kuya ku-4+/HPF

INANI LETHEBULA



**Amasampula Esibalo Seseli Eliphansi:**  
Bala inqqikithi yamaseli ohlobo oluthile  
oluqukethwe kumagridi amancane **angu-10**  
ngaphakathi kwama-quadrant ahlukene  
egridi yokubala.

**Amasampula Enani Eliphezulu Leseli:**  
Bala ingqikithi yamaseli ohlolo oluthile  
oluqukethwe kumagridi amancane **angu-5**  
ngaphakathi kwama-quadrant ahlukene  
egridi yokubala.

**PHAWULA:** Kumasampula angaphansi kuka-12mL yehlisa inani le-centrifuged libe ngu-6mL bese uphindza kabilis imiphumela etholwe ngaphambini kokusebenzisa ithebuli (ngenhla).

<b>Uhlobo Lweseli</b>	<b>Okujwayelekile</b>
Ama-leukocyte	0-4/ $\mu$ L
Ama-erythrocyte	0-2/ $\mu$ L

Umngcele	I-Pathological*
4-6/ $\mu$ L	> 6/ $\mu$ L
2-3/ $\mu$ L	> 3/ $\mu$ L

**Okune Ubakala:** Nquma **isilinganiso** senani lamaseli kugridi ngayinje **encane** bese usebenzisa isici sokuhindaphinda esilandelayo ukuze ubale amaseli nge- $\mu$ L ngayinje.

**Ukuze ubale amaseli / μL usebenzisa i-KOVA Plastics Glasstic Slide 10 ngeGridi:**

- Kumasampula angagxilile noma ahlanzekile, phindaphinda amaseli amaphakathi atholwe kugridi ngayinye encane x **90**.
  - Kumasampula angu-10mL agxiliswe ku-1mL, phindaphinda amaseli amaphakathi atholwe kugridi ngayinye encane x **9**.
  - Kumasampula angu-10mL agxiliswe ku-0.5mL, phindaphinda amaseli amaphakathi atholwe kugridi ngayinye encane x **4,5**.
  - Kumasampula angu-12mL agxiliswe ku-1mL (Isistimu ye-KOVA), phindaphinda amaseli amaphakathi atholwe kugridi ngayinye encane x

7,5.

Isibonelo sokubala (Usebenzisa indlela ye-KOVA System 12mL ukuya ku-1mL):

Amaseli      Amagridi Abaliwe      Amaseli Aphelele      Isilinganiso Amaseli / Amagridi      I-Multiple x Factor (7,5)      Amaseli nge-ju ngayinye yamasampula

INANI LETHEBULA  
ONGAHLANGANISWE NALUTHO, ONGASEFIVE UMCHAMO NOMA AMASAMPULA OKETSHEZI OLUSEMZIMBENI

## AMASAMPULA ESIBALO SESELI ELIPHANSI

Bala ingqikithi yamaseli ohlobo oluthile  
oluqukethwe kumagridi amancane **angu-36** noma  
ama-quadrant angu-4 aphelele egridi yokubala.

## Okunye Ukubala:

Phindaphinda inani elimaphakathi lamaseli kugridi ngayinye encane ngo-90 ukuze uthole amaseli ngeµL ngayinye; phindaphinda ngo-90,000 ukuze uthole amaseli ngemL ngayinye.

## INANI ELIPHEZULU LESIBALO SAMASAMPULA

Bala ingqikithi yamaseli ohlobo oluthile  
oluqukethwe kumagridi amancane **angu-10**  
kumaquadranti ahlukene egridi yokubala.

### Okunye Ukubala:

Phindaphinda inani elimaphakathi lamaseli kugridi ngayinye encane ngo-90 ukuze uthole amaseli ngeµL ngayinye; phindaphinda ngo-90,000 ukuze uthole amaseli ngemL ngayinye.

INDLELA YOKUBALA UKETSHEZI LOMZIMBA OLUXUTSHIWE:

Amaseli /  $\mu$ L = Isilinganiso senani lamaseli kugridi ngayinye encane x 90 (isici sokuphindaphinda) x ukuhlanjululwa isb, Uketshezi lomgogodla luhanjululwe ngo-1:10; isamba sama-RBC angu-50 abalwe kumagridi amancane angu-10

$$\text{I-RBC}/\mu\text{L} = \frac{\text{amaseli angu-50}}{\text{amagridi angu-10}} \times 90 \text{ (isici)} \times 10 \text{ (ukuhlanjululwa)}$$

5 → 900 → 4,500 RBC/L

isib; Isidoda siblanjuylwe 1:20; isamba sesidoda esingu, 150 esibalwo kumagridi amancano ama, 5

$$\text{Isidoda}/\mu\text{L} = \frac{150}{5} \times 90 \text{ (isici)} \times 20 \text{ (ukuhlanjululwa)}$$

= 30 \times 1800 = 54,000 \text{ isidoda}/\mu\text{L}

INGOKITHI YOKUBAIWA KWAMASELO OHLELO OLUWAYELEKILE<sup>(1)</sup>

UKETSHEZI	UHLOBO LWESELI	OLUJWAYELEKILE	OLUNGAIWAYELEKILE	UKETSHEZI	UHLOBO LWESELI	OLUJWAYELEKILE	OLUNGAIWAYELEKILE
Umchamo (2)	Ama-leukocyte Ama-erythrocyte	0-6/ $\mu$ L 0-3/ $\mu$ L	>6/ $\mu$ L >3/ $\mu$ L	I-Synovial	Ama-leukocyte Ama-erythrocyte	<200/ $\mu$ L <2,000/ $\mu$ L	>200/ $\mu$ L >2,000/ $\mu$ L
I-CSF (Ibangla labadala)	Ama-leukocyte	0-5/ $\mu$ L	>5/ $\mu$ L	I-Pleural	Ama-leukocyte	<1,000/ $\mu$ L	>1,000/ $\mu$ L
				I-Pericardial	Ama-leukocyte	<1,000/ $\mu$ L	>1,000/ $\mu$ L
Okusasidoda	Isidoda	40,000/ $\mu$ L - 160,000/ $\mu$ L	<40,000/ $\mu$ L	Pertoneal	Ama-leukocyte Ama-erythrocyte	<300/ $\mu$ L <100,000/ $\mu$ L	>300/ $\mu$ L >100,000/ $\mu$ L

Izikhombo: (1) I-Strasinger, SK (1985) **Ukuhlaziywa Komchamo kanye Noketshezi Lomzimba**, FA Davis, Philadelphia • (2) Alken, CD, kanye ne-Sokeland, J. (1983) **Urologie**, Thiems, Stuttgart, Edition Nineth, ikh. 79

Uphawu	IsiNgisi
<b>LOT</b>	Iqoqo/Ikhodi Yenqwaba
	Ukuphelelwa yisikhathi/Sebenzisa Ngu
	Umkhiqizi
<b>REF</b>	Inombolo Yekhathalogi
	Iqukethe Ubuningi
	Ungaphinde Usebenzise
<b>UDI</b>	Isihlonzi Sedivayisi Eshlukile
<b>IVD</b>	Ukusetshenzisa kwe-Invitro Diagnostics
 www.kovaplastics.com	Imiyalo Yokusetshenzisa/Imiyalo Yokusebenzisa Kagesi
	Kwenziwe Ezweni (I-United states)
	Imikhawulo Yesitoreji

	Alltrista Plastics LLC 20 Setar Way Reedsville, Pa 17084 United States Customer Service: +1 864-879-8100	<b>EC</b> <b>REP</b> Advena Ltd. Tower Business Centre, 2 <sup>nd</sup> Flr. Tower Street, Swatar, BKR 4013 Malta
	EU Economic Operator MDR/IVDR Article 13 Advena Services Ltd. Tower Business Centre, Tower Street Swatar, BKR 4013 Malta	<b>CH</b> <b>REP</b> Axon Lab Ag Täfernstrasse 15 CH-5405 Baden-Dättwil Switzerland

