

شرکت تحقیقاتی تولیدی پویاژن آزما

POUYA GENE AZMA Co.  
(PGA)

## PGA Blood DNA Extraction kit

Catalog No. PD120-050

Quantity: 50 Preps

Store at: RT

For research use only

نشانی: تهران خیابان پاسداران میدان اختیاریه،

خیابان شهید زرنگ، ابتدای خیابان شهید دوقوز

ساختمان نگین طبقه ۴ واحد ۱۲ تلفن: 1 -

۲۲۷۶۲۷۰۲ فاکس: ۲۲۷۶۲۷۰۰

No.12, Negin building, Doghouze St.,  
Zerang St., Ekhtiarieh Sq. Pasdaran St.,  
Tehran

Tel: 021 22762700-1, Fax: 22762702

[www.pgazma.com](http://www.pgazma.com)

## KIT CONTENTS:

MR buffer	20 ml
Buffer MI	10 ml
Buffer MII	2.5 ml
Buffer MIII	5 ml
Solvent Buffer	2.5 ml
RNase A	50 µl

## Need contents :

cold ethanol 96% - %100  
cold ethanol %70

## TROUBLESHOOTING

	Possible reason	Solution
<b>Low Yield of DNA</b>	Low precipitatio. Incomplete lysis	Take new sample. Keep in 37oC for more time
<b>smear DNA bands</b>	Improper electrophoresis conditions were used.	Do not allow voltage to exceed ~20 V/cm. Maintain a temperature <30° C during electrophoresis. Check that the electrophoresis buffer used had sufficient buffer capacity. This is done by checking the pH in the anode and cathode chambers.
	There was too much salt in the DNA.	Use ethanol precipitation to remove excess salts, prior to electrophoresis.

**12: Microcentrifuge at 13000 rpm for 5 minutes.**

**13: Pour off the ethanol by inverting tube gently and keep precipitate.**

**14: Washing the precipitate by adding 700  $\mu$ l cold ethanol %70 and inverting 2-3 times.**

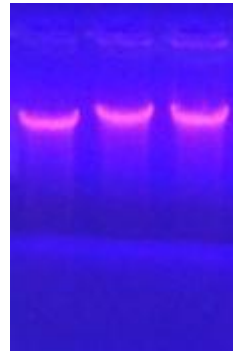
**15: Microcentrifuge at 13000 rpm for 1 minute.**

**16: Pour off the ethanol completely and dry pellet for 2-3 minutes in room temperature.**

**17: According to precipitate Add 20 - 50  $\mu$ l Solvent Buffer in tube. The precipitate must to be solve completely.**

### **Kit Description:**

This kit contains all ingredients for quick preparation of pure DNA from blood. This kit presents remarkable features of timesaving, easy, prompt and high yield DNA purification. The procedure requires 90 minutes and does not require phenol extraction . DNA obtained by this method can be used for all molecular biology procedures (PCR, restriction digestion, cloning, Southern blot, DNA sequencing, etc.).



**Fig1:** Extracted DNA by this kit Of 100  $\mu$ l blood on 1% agarose

1: fresh bood. 2: 1 week at 2-8°C 3: 1 month at 20°C

**attention: before use , please add RNase A and proteinase K in Buffer MI and keep at 4 °C**

1: Add 100 µl whole blood to 1.5 ml microtube, then add 200 µl MR buffer and mix gently by inverting 2 times.

2: Transfer tube on ice for 2-3 minutes and then microcentrifuge at 9000 rpm for 5 minutes.

3: Pour off Supernatant by tube inverting gently and keep Precipitate. **(Important: do not decant all of the supernatant. keep about 50 µl of supernatant to microtube).**

4: Add 200 µl MR buffer and resuspending of precipitate in it. microcentrifuge at 9000 rpm for 5 minutes.

5: Repeat steps 3 and 4 until producing white precipitate in microtube.

6: Add 200 µl MI buffer and resuspending of precipitate in it.

7: Add 50 µl MII buffer to tube and inverting 2 times gently and keep in room temperature for 20 - 30 minutes until produce clear Solution.

8: Add 100 µl MIII buffer to tube and inverting for 10 times.

**( when add MIII buffer in tube and inverting , producing white precipitate in microtube)**

9: Microcentrifuge at 13000 rpm for 10 minutes.

10: Transfer Supernatant to a new tube. **(important: do not transfer of precipitate in new tube. If transfer of precipitate in it please repeat 9 and 10 steps again )**

11: Add 2 volumes cold ethanol %96 - %100 in solution and inverting gently for 5 times.