

User's Manual of Yeast Doctor plus

Yeast Doctor plus was developed base on the yeast strains modified by 2013 Tsinghua iGEM Team. It is an advanced version of Yeast Doctor providing fun together with health. The product contains two strains of yeast, the sensor strains and the reporter strains. The sensor strains (Doctor S) have the function to detect specific small molecules released by pathogens, such as P.Aeruginosa and M.tuberculosis, in users' secretions and then send out the signal. The reporter strains (Doctor R) read the signal and report the pathogen alert in different ways, including red, cyan and yellow fluorescence

1. Contents

Doctor S		Doctor R	
Paper	8×10(cm)	Paper	8×10(cm)
Dry sensor strain powder	5 μ g	Dry reporter strain powder	5 μ g
Dry growth medium powder	10 μ g	Dry growth medium powder	10 μ g

Doctor S and Doctor R are both vacuum-packed papers with dry yeast powder and yeast growth medium powder on them.

2. Uses

- Detect certain types of pathogenic infections
- Alert users to pathogen infections in different ways
- Add fun to pathogen detection

3. Directions

- Choosing Doctor S and Doctor R
Pick the Doctor S for the illness you want to test and Doctor R for the kind of reporter you like.
- Removing packing bags gently
Try to avoid carrying the powder off and keep the packing bag for discarding used papers.
- Moisturizing the papers with warm water
The effect will be enhanced when the temperature of the water is kept between 30°C and 50°C. The optimal temperature is also dependent on the room temperature where using.
- Applying Doctor R to Doctor S
Make sure the two strains of yeast are mixed thoroughly.
- Keeping the papers in warm place for 8-14h
The optimal temperature for keeping the paper is 30°C. The length of recovery times varies in different cases.
- Spreading your secretions on the papers
Nasal discharge, sputum and urine are most commonly detected samples.
- Waiting for the pathogen alert
Users can choose any kind of reporter as they like.
- Discarding used papers.
Put the paper back to the packing bag and seal tightly.

4. Warns

- Avoid touching the paper with your skin.
- Stop use and ask a doctor if you feel allergic to this product.
- The product is not able to replace doctors. Go to see a doctor if necessary.