EZassay

Lateral flow paper strip Instructions (for CRISPR SHERLOCK)

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Catalog Code: HD-FMBO-48
HD-FMBO-96

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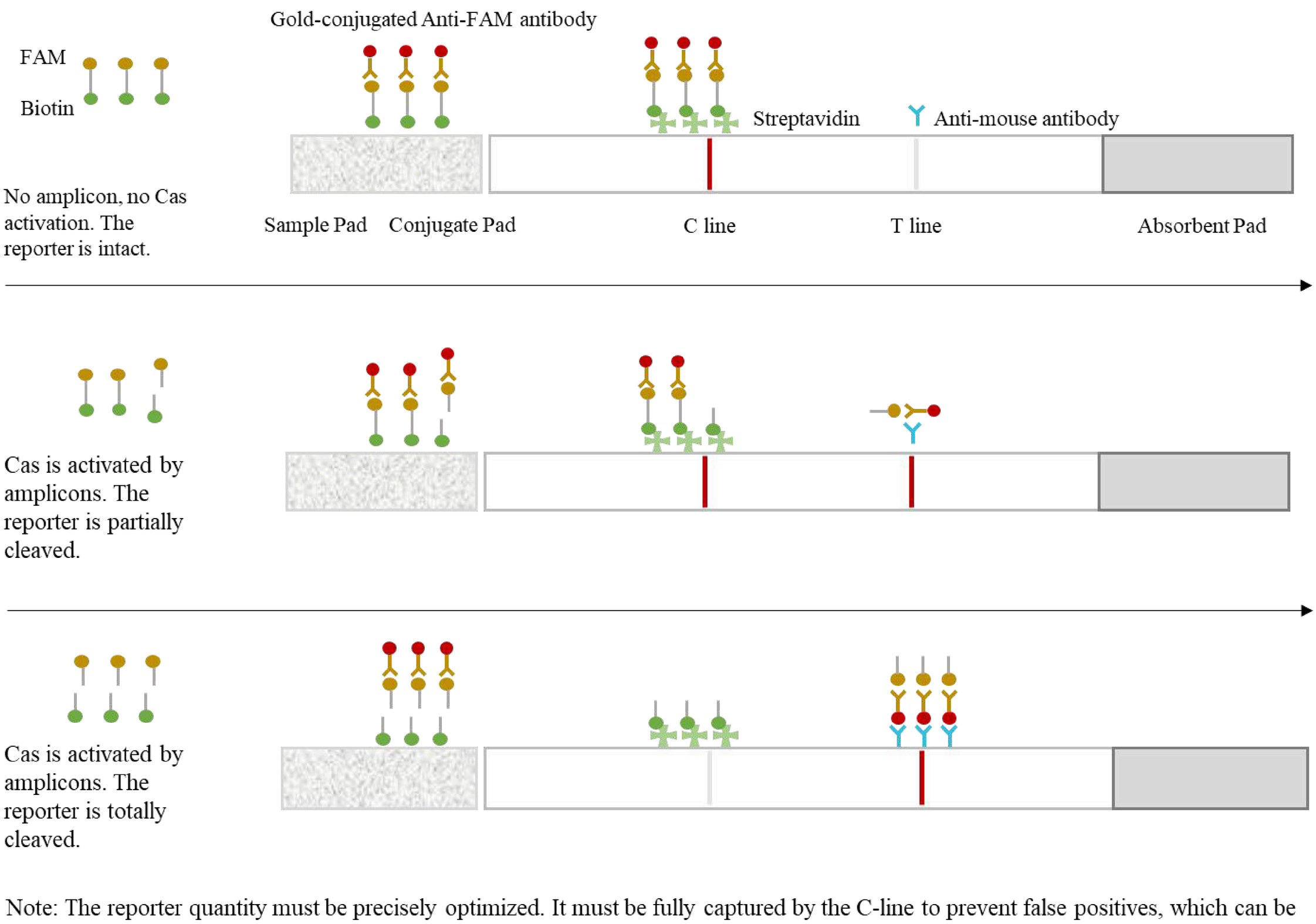
Product Introduction

This product is based on the lateral flow technology using gold nanoparticles. It is able to give information about the status of reporter, a short single stranded DNA- or RNA-molecule with dual-label of Biotin & FAM or Biotin &FITC.

Successful target recognition of the CRISPR/Cas complex triggers collateral nuclease activity of the Cas Protein. Cas-dependent reporter cleavage leads to the separate of the FAM/FITC and Biotin labels. The paper strip is able to differentiate between intact and cleaved reporter. Recommend to use with EZassayTM products CRISPR-Cas12a DNA detection kit (Cat.#: D-L-CAS12-1S; D-L-CAS12-2S.)



Note: The reporter quantity must be precisely optimized. It must be fully captured by the C-line to prevent false positives, which can be caused by either over- or under-loading.

Materials supplied

Item	HD-FMBO-48	HD-FMBO-96	Store
Lateral flow paper strip (without cassette)	48 tests	96 tests	Room temperature (15- 30°C). Do not freeze. Protected from moisture and direct sunlight.
Diluent buffer	5 mL	10 mL	2-8°C

Assay procedure

1. Take out paper strips as needed and label them.
2. Take 10μL CRISPR-Cas products and mix with 40μL diluent buffer*.
3. Insert paper strip into the liquid. (The liquid level should not exceed the MAX line.)
4. Read results in 5-10 minutes.

* Diluent factor needs to be optimized according to reporter concentrations.

Result

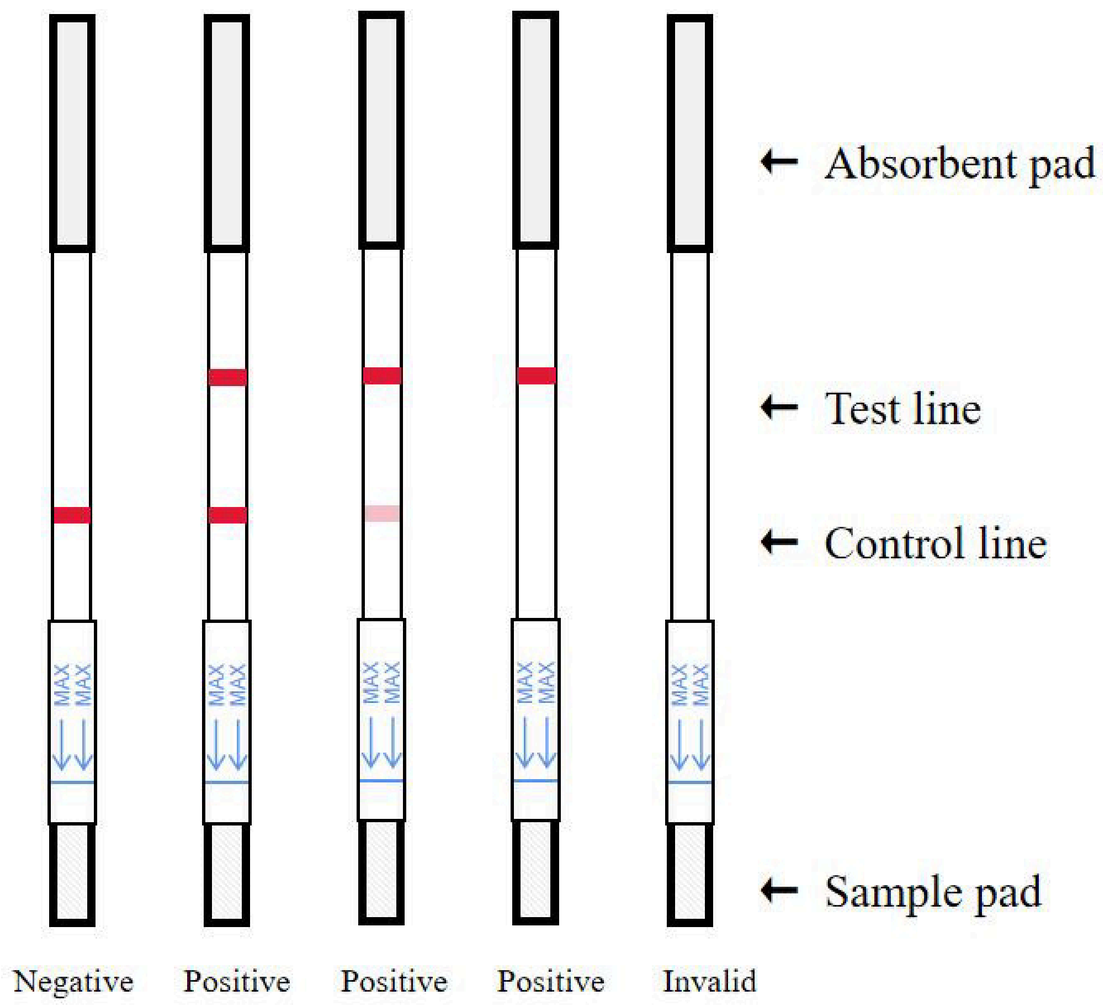


Figure 1: Schematic diagram of the interpretation of the results

- **Negative**: Cas protein is inactivated. The reporter is intact. All reporters are captured at Control line.
- **Strong positive**: Cas protein is activated. The reporter is totally cleaved. No gold nanoparticles are captured at Control line.
- **Positive**: Cas protein is activated. The reporter is partially cleaved. Some reporters are captured at Control line and some are captured at Test line.
- **Invalid**: No gold nanoparticles at Control line and Test line.