

# Rapid Human Immunoglobulin Isotyping Kit (Cat#: ISO-Hu)

5 minute determination of 7 human Ig heavy chain isotypes and 2 light chain subclasses

The Rapid Human Immunoglobulin Isotyping Kit is a five-minute lateral flow assay with ELISA sensitivity for monoclonal antibody class and subclass determination. Acceptable sample types include hybridoma culture supernatant and purified monoclonal antibody. This kit can also be used to determine the relative distribution and changes of the isotypes in serum under health and disease status.

### Kit Components

The isotyping kit has three different sizes with 5, 10 or 20 pouches containing two cassettes per pouch: one cassette is for determining IgG1, IgG2, IgG3 and IgG4, and the other cassette is for determining IgM, IgA1, IgA2,  $\kappa$  and  $\lambda$ . Both strips contain a control line "C".

### Sample Requirements and Dilution Conditions

Cell Culture Supernatant	Purified Antibody	Serum
Depending on the actual titre of the Ab-producing cells or hybridomas, recommended dilution is 1:2~1:50 in PBS.	Dilute samples to 0.5 – 2.0 $\mu\text{g/mL}$ in PBS.	Serum can be diluted 100-500 fold in PBS.

### Protocol

- 1) Place the cassettes in horizontal plane.
- 2) Add 100  $\mu\text{L}$  antibody solution directly to the Sample Well. Wait for 5 minutes.
- 3) A red test line at the location corresponding to antibody-specific isotype and a red control line at "C" position will appear within 1-5 minutes.

**NOTE:** Do not read after 20 minutes. If the color of tissue culture medium causes high background, 40-60  $\mu\text{L}$  PBS can be chased to clear the background. Promptly return unused strips in sealed bag and keep dry.

### Result Interpretation

1. Invalid result: no red line at "C".
2. Negative result: only one red line at "C".
3. Positive results:
  - a). Single monoclonal antibody: In addition to the

positive control "C" line, only one heavy chain and one light chain will appear.

b). Multiple monoclonal antibodies: Besides the positive control line, more than one heavy chain and/or light chain will appear. The line intensity can be used to judge the dominant isotypes.

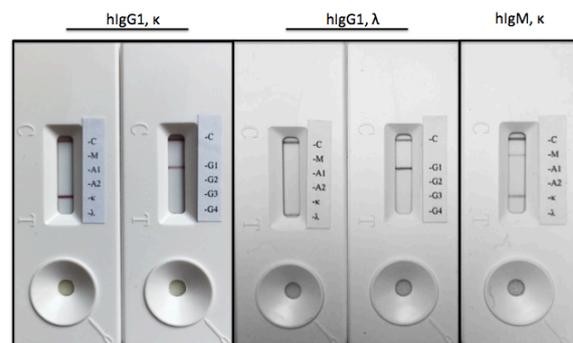
### Performance

Minimal detection limit is 100 ng/mL. There is no cross-reactivity among each isotype.

### Storage

Store the strips in their original package at room temperature. This product is stable for up to 18 months from the certified date. Freezing the strips is not recommended.

### Examples



Supernatants of CHO cells grown in serum-free medium expressing recombinant hIgG1 $\kappa$  (left two panels), or hIgG1 $\lambda$  (middle two panels), and the culture medium of a hIgM $\kappa$  hybridoma (right panel) were diluted 1:1 with PBS and loaded onto ISO-Hu, respectively. Note that the band indicating  $\lambda$  is on the edge of the viewing window, but clearly visible. There is no cross-reactivity among different isotypes. Photos were taken within 5 min.



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