

## Anti-IVD Antibody (7F375)

### Product Details

Ig Type:	Mouse IgG2b
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	7F375
Purification:	Protein A

### Applications

1. Immunofluorescence staining of Human IVD in HeLa cells. Cells were fixed with 4% PFA, permeabilized with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with Mouse anti-Human IVD monoclonal antibody (1:300) at 37°C 1 hour. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-mouse IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to cytoplasm.
2. Flow cytometric analysis of Human IVD expression on HeLa cells. The cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), stained with purified anti-Human IVD, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.
3. IVD was immunoprecipitated using:
  - Lane A:0.5 mg Jurkat Whole Cell Lysate.
  - Lane B:0.5 mg A549 Whole Cell Lysate
  - 0.5 µL anti-IVD mouse monoclonal antibody and 15 µl of 50 % Protein G agarose.
  - Primary antibody:
    - Anti-IVD mouse monoclonal antibody, at 1:500 dilution.
  - Secondary antibody:
    - Dylight 800-labeled antibody to Mouse IgG (H+L), at 1:7500 dilution.
  - Developed using the odyssey technique.
  - Performed under reducing conditions.
  - Predicted band size: 40 kDa.
  - Observed band size: 40 kDa.
4. Anti-IVD mouse monoclonal antibody at 1:500 dilution.
  - Lane A: Jurkat Whole Cell Lysate.
  - Lane B: HeLa Whole Cell lysate.
  - Lysates/proteins at 30 µg per lane.
  - Secondary
    - Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
  - Developed using the Odyssey technique.
  - Performed under reducing conditions.
  - Predicted band size:47 kDa.
  - Observed band size:40 kDa

### Verified Activity:

## A DRUG SCREENING EXPERT

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Application: ELISA,FCM,ICC/IF,IP,WB  
Recommended WB: 1:500-1:1000; ELISA: 1:5000-1:10000; ICC-IF: 1:100-1:500; FCM: 1:100-1:500; IP: 0.1-0.5  $\mu$ L/mg of lysate

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### Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.  
Shipping: Shipping with blue ice.

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### Antigen Details

Immunogen: Recombinant Protein: Human Isovaleryl-CoA dehydrogenase / IVD protein (TMPY-03264)  
Antigen Species: Human  
Synonyms: 6720455E18Rik;isovaleryl-CoA dehydrogenase;1300016K07Rik;AI463340

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### Research Background

IVD (Isovaleryl-CoA Dehydrogenase) is a Protein Coding gene. IVD is a mitochondrial matrix enzyme that catalyzes the third step in leucine catabolism. IVD plays an essential role in processing proteins obtained from the diet. The body breaks down proteins from food into smaller parts called amino acids. Amino acids can be further processed to provide energy for growth and development. Isovaleryl-CoA dehydrogenase helps process a particular amino acid called leucine. Specifically, isovaleryl-CoA dehydrogenase is responsible for the third step in the breakdown of leucine. This step is a chemical reaction that converts a molecule called isovaleryl-CoA to another molecule, 3-methylcrotonyl-CoA. Additional chemical reactions convert 3-methylcrotonyl-CoA into molecules that are used for energy.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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