

PRODUCT SPECIFICATION

Anti-Trypsin (human)

Mouse monoclonal antibody, biotinylated HYB 021-03 B

Subclass: IgG1/k

PRODUCT NO.

PRESENTATION

Preparation: Biotinylated

Content: 100 µL, 1 mg/mL +/- 15%. See Certificate of Analysis for details.

Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.14 M NaCl and 15mM sodium azide

Storage: 4-8°C without exposure to light. No precautions necessary during handling.

ANTIGEN

Trypsin is a 24 kDa enzyme and is a member of the serine proteinase family. It is produced in the pancreas as an inactive precursor trypsinogen. The active enzyme is located in the gastrointestinal tract where it degrades proteins to large peptides. Trypsin predominantly cleaves proteins at the carboxyl side of the amino acids lysine and arginine. A common trypsin substrate is chymotrypsinogen which is cleaved to produce active chymotrypsin.

High levels of immunoreactive trypsin in the bloodstream can indicate pancreatic malfunction and this indicator is used to screen for and diagnose Cystic Fibrosis (1).

IMMUNOGEN

Trypsin purified from human pancreatic tissue and adsorbed onto aluminum hydroxide gel (2)

SPECIFICITY

HYB 021-03 is specific for human trypsin, trypsinogen and trypsin in complex with α_1 -antitrypsin. HYB 021-03 cross-reacts weakly with bovine trypsin.

EPI TOPE SPECIFICITY

Epitope differs from that of HYB 021-08

REACTIVITY

HYB 021-03 reacts with human trypsin coated directly onto a microtiter plate and can be used as both a catching and a detection antibody in sandwich ELISA.

HYB 021-03 recognizes human trypsin in Western blotting under reducing conditions.

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

X63-Ag8.653

IMMUNIZATION

Female CF1 x BALB/c mice immunized by intraperitoneal injection

APPLICATION

| Method | Usability | References |
|----------------------|----------------|------------|
| ELISA | Yes | |
| Immunoblotting | Not determined | |
| Immunohistochemistry | Not determined | |

REFERENCES

1. Crossley JR, Smith PA, Edgar BW, Gluckman PD, Elliott RB (1981) Neonatal screening for cystic fibrosis, using immunoreactive trypsin assay in dried blood spots. Clin Chim Acta 113:111-121
2. Feinstein G, Hofstein R, Koifmann J, Sokolovsky M (1974) Human pancreatic proteolytic enzymes and protein inhibitors. Isolation and molecular properties. Eur J Biochem 43:569-581.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.