

ImmunoEX™ Immunoassay Development Kit

IEX001/IEX002

For Research Use Only

Introduction

An immunoassay is a biochemical test that detects or measures specific molecules, typically proteins or other substances, using the principles of antibody-antigen interactions. These tests are widely used in medical diagnostics, research, and industry to detect hormones, drugs, pathogens, and disease biomarkers. However, immunoassays suffer from cross-reactivity, leading to false positives or negatives, and often have limited sensitivity for detecting very low concentrations. In addition, matrix effects from sample components can interfere with accuracy, while temperature and storage conditions may impact reagent stability. **ImmunoEX™ Immuno-assay Development Kit** contains three buffers, including two different formulations (protein-based and protein-free) and one diluent. The kit also offers two basal buffer options, one with Tween 20 and one without – supporting a wide range of immunoassay applications.

Product Components

ImmunoEX™ Immunoassay Development Kit (TBST) (IEX001)

TBST Buffer	IE01-125	125 mL	1 bottle
Protein-Based Immunoassay Buffer (TBST)	IE03-50	50 mL	1 bottle
Protein-Free Immunoassay Buffer (TBST)	IE05-50	50 mL	1 bottle
User's manual			

ImmunoEX™ Immunoassay Development Kit (TBS) (IEX002)

TBS Buffer	IE02-125	125 mL	1 bottle
Protein-Based Immunoassay Buffer (TBS)	IE04-50	50 mL	1 bottle
Protein-Free Immunoassay Buffer (TBS)	IE06-50	50 mL	1 bottle
User's manual			

Safety Information

Please wear gloves, lab coat and goggles while operating. Prevent contact product directly. In case of contacting, wash with large amount of water.

V1.1



Storage

ImmunoEX™ Immunoassay Development Kit should be shipped at room temperature and be stored at 2-8 °C. Expiration date is labeled on the bottle or box.

Materials needed but not provided

- 1. 15 mL Centrifuge tube
- 2. Image capture system or plate reader

Instruction

A. Preparation of the Immunoassay buffer set

- Label eight 15 mL Centrifuge tubes as follows: #1 (PB1); #2 (PB2); #3 (PB3); #4 (PB4);
 #5 (PF1); #6 (PF2); #7 (PF3); #8 (PF4).
- 2. Prepare test buffer as following table:

	#1 (PB1)	#2 (PB2)	#3 (PB3)	#4 (PB4)	#5 (PF1)	#6 (PF2)	#7 (PF3)	#8 (PF4)
TBST Buffer / TBS Buffer	0	1	2	3	0	1	2	3
Protein-Based Immunoassay Buffer (TBST / TBS)	4	3	2	1	-	-	-	-
Protein-Free Immunoassay Buffer (TBST / TBS)	-	-	-	-	4	3	2	1

(Unit: mL)

B. Optimization of the Immunoassay

1. Execute the standard immunoassay procedure with above eight buffer substitutes.

NOTE: For **"ELISA or Western Blot Immunoassay"**, the assay buffer, blocking buffer or antibody diluent buffer could be substituted.

NOTE: For **"Lateral flow immunoassay"**, the extraction buffer or assay buffer could be substituted.

2. Evaluate the optimized buffer substitute with suitable instrument, e.g., image capture system or plate reader.