

# Blocking solutions

## User's Manual

Beacle, Inc.

KYOTO JAPAN

### Cautions

1. Research use only. Do not use for medical purpose.
2. Do not dilute or add other agents in Blocking solutions to get the best result.
3. In some occasions, deposits may occur in solutions. Please dissolve the deposit before use.

### (1) Introduction

Blocking is very important to get proper results in western blot and ELISA. Beacle has developed four types of ready-to-use blocking solutions each of which has characteristic property.

#### ●Features●

1. Ready-to-Use
2. Exclusive formulation for Western or ELISA
3. Higher sensitivity than skim milk for Western Products
4. Long-term preservation of pre-coated plate possible by using ELISA blocking solution

### (2) Product Lineup

Blocking solution products are listed below. This manual is applied to all blocking solutions.

Field	Product #	Product name	content	Outline
Western	BCL-BKCW-01	c-Block-w	500 mL	100% Chemical blocking solution
	BCL-BKHW-01	h-Block-w	500 mL	Casein base blocking solution
	BCL-BKKW-01	k-Block-w	500 mL	Degarade casein base blocking solution
	BCL-BKBW-01	b-Block-w	500 mL	BSA base blocking solution
	BCL-BKSW-01	Blocking solution Trial set (Western)	20 mL × 4	Trial kit containing above 4 blocking solutions
ELISA	BCL-BKCE-01	c-Block-e	500 mL	100% Chemical blocking solution
	BCL-BKHE-01	h-Block-e	500 mL	Casein base blocking solution
	BCL-BKKE-01	k-Block-e	500 mL	Degarade casein base blocking solution
	BCL-BKBE-01	b-Block-e	500 mL	BSA base blocking solution
	BCL-BKSE-01	Blocking solution Trial set (ELISA)	20 mL × 4	Trial kit containing above 4 blocking solutions

### (3) Related Products

To enhance antigen-antibody reaction under 100% protein-free condition, the combination of c-Block and Signal Booster Neo is highly recommended.

Product #	Product name	content	Price	Outline
BCL-SBN-01	Signal Booster Neo 250	250 mL	¥20,000	Protein-free antigen/antibody reaction enhancer
BCL-125	Signal Booster	250 mL set	¥18,000	Standard antigen/antibody reaction enhancer

### (4) Selection guide of proper blocking solution

Below is a general description. We recommend using Trial set to select the best blocking solution.

Western blot: Skim milk which many researchers use is good for general purpose, but suppress signal strength. The below shows selection guide as compared with skim milk.

- 1) Needs higher sensitivity (Permits background elevation) : k-Block, c-Block
- 2) Needs lower background (Permits lower sensitivity) : b-Block, h-Block
- 3) General use: h-Block, b-Block
- 4) for phosphorylated proteins : c-Block, b-Block

#### ELISA:

Antigen detecting ELISA :

Direct method : c-Block, b-Block, k-Block

Antibody sandwich method : k-Block, b-Block, h-Block

Antibody detecting ELISA :

Direct method (detection by secondary antibody) : c-Block, b-Block, k-Block

Antigen sandwich method : k-Block, b-Block, h-Block

### (5) General instruction to use Blocking solution in Western blot

- 1) After SDS-PAGE, transfer proteins to PVDF membrane.
- 2) Soak the membrane into 10mL of Blocking solution, and let it stay for 1hr while shaking.
- 3) The rest of the process is the same as usual.

### (6) General instruction to use Blocking solution in ELISA

- 1) Immobilize antibody (or antigen) onto each wells of microplate by usual method, and wash wells by PBS-T 3 times.
- 2) Pour 200μL of Blocking solution into each well and let it stay for 1hr at 37°C.
- 3) Discard Blocking solution, and tap the plate on the paper towel to remove the solution completely.
- 4) The rest of the process is the same as usual.
- 5) For long term preservation of pre-coated plate, remove Blocking solution completely from microplate which has been antibody (or antigen)-immobilized and treated by Blocking solution. Then dry up the plate at room temperature completely, and pack in an air and light-tight bag with a desiccant. The plate can be stored for more than 6 months at 4°C.

### (7) Contact information

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