

## Anti-BST1 Polyclonal Antibody

### Product Details

Ig Type:	IgG
Reactivity:	Human, Mouse (predicted: Rat, Dog, Pig, Cow, Rabbit)
Molecular Weight:	Theoretical: 33 kDa. Actual: 33 kDa.
Purification:	Protein A purified

### Applications

1. Sample:  
Raw264.7 (Mouse) Cell Lysate at 30 µg  
Primary: Anti-BST1 (TMAB-03235) at 1/500 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 33 kD  
Observed band size: 33 kD

2. Blank control: U937 (blue).

Primary Antibody: Rabbit Anti-BST1 antibody (TMAB-03235), Dilution: 1 µg in 100 µL 1X PBS containing 0.5% BSA;

Verified Activity: Isotype Control Antibody: Rabbit IgG (orange), used under the same conditions.  
Secondary Antibody: Goat anti-rabbit IgG-PE (white blue), Dilution: 1: 200 in 1 X PBS containing 0.5% BSA.

#### Protocol

The cells were fixed with 2% paraformaldehyde (10 min). Primary antibody (TMAB-03235, 1 µg /1x10<sup>6</sup> cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA+10% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.

Application: WB, FCM

Recommended WB: 1:500-2000; FCM: 1µg/Test

### 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.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: KLH conjugated synthetic peptide: human BST1/CD157  
Antigen Species: Human  
Gene ID: 683  
Uniprot ID: Q10588

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### Research Background

Bone marrow stromal cell antigen 1 (BST1) is a pleiotropic ectoenzyme which belongs to the CD38 family and to the growing number of leukocyte surface molecules known to act independently as both receptors and enzymes. The BST1 molecule displays two distinct domains in its extracellular component. The first is implicated in the enzymic activities of the molecule (it synthesizes cyclic ADP-ribose, a second messenger that elicits calcium release from intracellular stores) and the second domain has adhesion/signalling properties.

Bone marrow stromal cell antigen 1 facilitates pre-B-cell growth. The deduced amino acid sequence exhibits 33% similarity with CD38. BST1 expression is enhanced in bone marrow stromal cell lines derived from patients with rheumatoid arthritis. The polyclonal B-cell abnormalities in rheumatoid arthritis may be, at least in part, attributed to BST1 overexpression in the stromal cell population.

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