

Catalog Number: 10259-R112-F

General Information	
<b>Immunogen:</b>	Recombinant Human CD32b protein (Catalog#10259-H08H)
<b>Reagents:</b>	FITC-conjugated rabbit monoclonal antibody
<b>Specificity:</b>	Human CD32b / FCGR2B
<b>Clone ID:</b>	112
<b>Ig Type:</b>	Rabbit IgG
<b>Applications:</b>	Flow Cytometry, WB
<b>Concentration:</b>	5 µl/Test, 0.2 mg/ml
<b>Formulation:</b>	Aqueous solution containing 0.5% BSA and 0.1% sodium azide
<b>Storage:</b>	2 °C - 8 °C in the dark

### Preparation

This antibody was obtained from a rabbit immunized with purified, recombinant Human CD32b / FCGR2B (rh CD32b / FCGR2B; Catalog#10259-H08H; NP\_001002274.1; Ala 46-Pro 217) and conjugated with FITC under optimum conditions, the unreacted FITC was removed.

### Storage

This antibody is stable for 12 months from date of receipt when stored at 2°C - 8°C. Protected from prolonged exposure to light. **Do not freeze !**

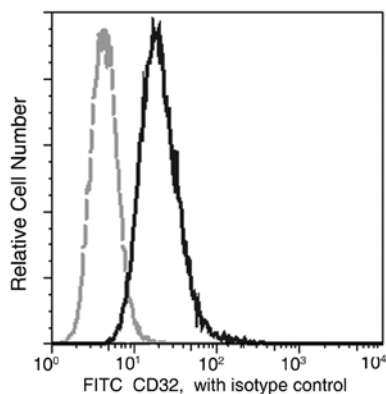
Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal

### Applications

#### Flow Cytometry –

#### Profile of CD32 reactivity on THP-1 cells analyzed by flow cytometry.

Cells should be Fc-blocked by treatment with 20 µg of human IgG/10<sup>6</sup> cells for 1 hour at 4 °C prior to staining, washed, then stained with FITC rabbit anti-CD32b (10259-R112).



Flow cytometry was performed on a BD FACSCalibur flow cytometry system.

Please refer to [www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html](http://www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html) for technical protocols.

**Western blot** – This antibody can be used at 1-2 µg/mL with the appropriate secondary reagents to detect Human CD32b in WB. Using a DAB detection system, the detection limit for Human CD32b is approximately 0.5 ng/lane under non-reducing conditions and 0.125 ng/lane under reducing conditions.

### Specificity

Human CD32b / FCGR2B

**Has cross-reactivity** in ELISA with Human CD64

**No cross-reactivity** in ELISA with

Mouse FCGR2B

Human CD32a

Human CD16b

Human CD16a



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## Background

Receptors that recognize the Fc portion of IgG (Fcγ Rs) functions in the regulation of immune response and are divided into three classes designated Fcγ RI (CD64), Fcγ RII (CD32), and Fcγ RIII (CD16). Fcγ RI binds IgG with high affinity and functions during early immune responses, whereas Fcγ RII and RIII are low affinity receptors that recognize IgG as aggregates surrounding multivalent antigens during late immune responses. Three closely related genes encode human CD32 class by and designated Fcγ RII A, B, and C which share 94 - 99% amino acid identity in their extracellular domains. Fcγ RII B (CD32b) is expressed on cells of both myeloid and lymphoid lineages as well as on cells of non-hematopoietic origin. As the only inhibitory member in human, Fcγ RII B has an intrinsic cytoplasmic immunoreceptor tyrosine-based inhibitory motif (ITIM) and delivers an inhibitory signal upon ligand binding. The coordinated functioning of activating and inhibitory receptors is necessary for successful and proper initiation, amplification, and termination of immune responses, and accordingly, the Fcγ RII B plays an important negative-regulating role through modulating the signals from activation receptors. Recent study has identified CD32b expression in a variety of B-cell malignancies, suggesting that it is a potential immunotherapeutic target for B-cell lymphoproliferative disorders.

## Reference

1. Brooks, D.G. et al., 1989, J. Exp. Med. 170: 1369-1385.
2. Ravetch, J. et al., 2000, Science. 290: 84-89.
3. Takai, T., 2002, Nature Rev. Immunol. 2: 580-592.
4. Rankin, C.T. et al., 2006, Blood. 108: 2384-2391.