

# H2-D<sup>b</sup> (28-14-8): sc-52541

## BACKGROUND

The H2 gene complex encodes for MHC class I molecules that are histocompatibility antigens consisting of heterodimers of highly polymorphic  $\alpha$  chains non-covalently associated with the invariant  $\beta$ -2-Microglobulin cell types. MHC class I molecules present endogenously synthesised peptides to CD8<sup>+</sup> T lymphocytes, which are usually cytotoxic T cells. These antigens are expressed on most nucleated cells and levels of expression varies depending on cell type. The expression of MHC class I antigens on thymic epithelial cells regulates the positive and negative selection of CD8<sup>+</sup> T cells during T cell ontogeny. H2-D<sup>b</sup> is an MHC class I molecule that may inhibit or activate natural killer (NK) cells.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: H2-L (mouse) mapping to 17 B1.

## SOURCE

H2-D<sup>b</sup> (28-14-8) is a mouse monoclonal antibody raised against C3H.SW splenocytes of mouse origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

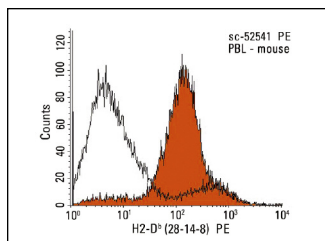
H2-D<sup>b</sup> (28-14-8) is available conjugated either phycoerythrin (sc-52541 PE, 100 tests in 2 ml) or fluorescein (sc-52541 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

## APPLICATIONS

H2-D<sup>b</sup> (28-14-8) is recommended for detection of  $\alpha$ 3 domain of H2-D<sup>b</sup> class I MHC antigen of mouse origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells); may cross-react with the  $\alpha$ 3 domain of H2-L<sup>d</sup> and with H2-D<sup>a</sup> and H2-L<sup>q</sup>; non cross-reactive with H2-K<sup>d</sup> or H2-D<sup>d</sup>.

Molecular Weight of H2-D<sup>b</sup>: 24 kDa.

## DATA



H2-D<sup>b</sup> (28-14-8): sc-52541. Indirect FCM analysis of mouse peripheral blood leukocytes stained with H2-D<sup>b</sup> (28-14-8), followed by PE-conjugated goat anti-mouse IgG<sub>2a</sub>: sc-3765. Black line histogram represents the isotype control, normal mouse IgG<sub>2a</sub>: sc-3878.

## SELECT PRODUCT CITATIONS

- Komita, H., Zhao, X., Taylor, J.L., Sparvero, L.J., Amoscato, A.A., Alber, S., Watkins, S.C., Pardee, A.D., Wesa, A.K. and Storkus, W.J. 2008. CD8<sup>+</sup> T-cell responses against hemoglobin- $\beta$  prevent solid tumor growth. *Cancer Res.* 68: 8076-8084.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.