Technical Data Sheet Biotin Hamster Anti-Mouse CD69

Product Information

Material Number:	553235
Alternate Name:	Very Early Activation antigen
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	H1.2F3
Immunogen:	Mouse Dendritic Epidermal T Cell Line Y245
Isotype:	Armenian Hamster IgG1, λ3
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The H1.2F3 antibody reacts with CD69 (Very Early Activation antigen), an 85 kDa disulfide-linked homodimer of differentially glycosylated subunits. CD69 is a C-type lectin, most closely related to the NKR-P1 and Ly-49 NK cell-activation molecules. Its expression is rapidly induced upon activation of lymphocytes (T, B, NK, and NK-T cells), neutrophils, and macrophages. CD69 is expressed also on thymocytes that are undergoing positive selection; its role in that process is unclear. H1.2F3 mAb augments PMA-induced T-cell stimulation and IFN-γ-induced macrophage stimulation. IL-2-activated NK cells express CD69, and H1.2F3 mAb induces redirected lysis of FcR-bearing target cells by NK cells.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed. Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application	
Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554061	PE Streptavidin	0.5 mg	(none)
553952	Biotin Hamster IgG1, 1 Isotype Control	0.25 mg	G235-2356

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/pharmingen/hamster_chart_11x17.pdf.
- 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

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References

Bendelac A, Matzinger P, Seder RA, Paul WE, Schwartz RH. Activation events during thymic selection. *J Exp Med.* 1992; 175(3):731-742.(Biology) Brandle D, Muller S, Muller C, Hengartner H, Pircher H. Regulation of RAG-1 and CD69 expression in the thymus during positive and negative selection. *Eur J Immunol.* 1994; 24(1):145-151.(Biology)

Gabor MJ, Godfrey DJ, Scollay R. Recent thymic emigrants are distinct from most medullary thymocytes. Eur J Immunol. 1997; 27(8):2010-2050.(Biology) Karlhofer FM, Yokoyama WM. Stimulation of murine natural killer (NK) cells by a monoclonal antibody specific for the NK1.1 antigen. IL-2-activated NK cells possess additional specific stimulation pathways. J Immunol. 1991; 146(10):3662-3673.(Clone-specific: Induction)

Keefe R, Dave V, Allman D, Wiest D, Kappes DJ. Regulation of lineage commitment distinct from positive selection. Science. 1999; 286(5442):1149-1153. (Biology)

Lauzurica P, Sancho D, Torres M, et al. Phenotypic and functional characteristics of hematopoietic cell lineages in CD69-deficient mice. *Blood.* 2000; 95(7):2312-2320.(Biology)

Marzio R, Jirillo E, Ransijn A, Mauel J, Corradin SB. Expression and function of the early activation antigen CD69 in murine macrophages. *J Leukoc Biol.* 1997; 62(3):349-355.(Clone-specific: Stimulation)

Merkenschlager M, Graf D, Lovatt M, Bommhardt U, Zamoyska R, Fisher AG. How many thymocytes audition for selection. J Exp Med. 1997; 186(7):1149-1158. (Biology)

Nishimura T, Kitamura H, Iwakabe K, et al. The interface between innate and acquired immunity: glycolipid antigen presentation by CD1d-expressing dendritic cells to NKT cells induces the differentiation of antigen-specific cytotoxic T lymphocytes. *Int Immunol.* 2000; 12(7):987-994. (Biology)

Punt JA, Suzuki H, Granger LG, Sharrow SO, Singer A. Lineage commitment in the thymus: only the most differentiated (TCRhibcl-2hi) subset of CD4+CD8+ thymocytes has selectively terminated CD4 or CD8 synthesis. J Exp Med. 1996; 184(6):2091-2099. (Biology)

Sobel ES, Yokoyama WM, Shevach EM, Eisenberg RA, Cohen PL. Aberrant expression of the very early activation antigen on MRL/Mp-lpr/lpr lymphocytes. J Immunol. 1993; 150(2):673-682. (Clone-specific: Stimulation)

Wilkinson RW, Anderson G, Owen JJ, Jenkinson EJ. Positive selection of thymocytes involves sustained interactions with the thymic microenvironment. J Immunol. 1995; 155(11):5234-5240.(Biology)

Yokoyama WM, Koning F, Kehn PJ, et al. Characterization of a cell surface-expressed disulfide-linked dimer involved in murine T cell activation. J Immunol. 1988; 141(2):369-376.(Immunogen: Flow cytometry, Stimulation)

Yokoyama WM, Maxfield SR, Shevach EM. Very early (VEA) and very late (VLA) activation antigens have distinct functions in T lymphocyte activation. *Immunol Rev.* 1989; 109:153-176.(Clone-specific: Flow cytometry, Stimulation)

Ziegler SF, Levin SD, Johnson L, et al. The mouse CD69 gene. Structure, expression, and mapping to the NK gene complex. J Immunol. 1994; 152(3):1228-1236. (Biology)

Ziegler SF, Ramsdell F, Alderson MR. The activation antigen CD69. Stem Cells. 1994; 12(5):456-465.(Biology)