SANTA CRUZ BIOTECHNOLOGY, INC.

Bu-1a/b (AV20): sc-52451

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The regulation of cell death is important for the immune system to function properly. T and B lymphocytes must be censored during their development so that the body can remove the nonfunctional or self-reactive lymphocytes. Genetically polymorphic cell surface antigen (Bu-1) antigens are type I transmembrane glycoproteins that may have an important role in controlling cell survival and/or adhesion during B cell development. Bu-1 is expressed on B cells as well as on a subset of macrophages. Embryonic spleen and bone marrow cells carry the Bu-1 antigen, marking these tissues as prebursal precursors for B cells. Bu-1 can induce a rapid form of cell death similar to apoptosis. Bu-1a and Bu-1b represent the recessive and dominant allelic products, respectivley, of the Bu-1 gene.

REFERENCES

1. Brand, A., Galton, J. and Gilmour, D.G. 1983. Committed precursors of B and T lym thymus, and bone marrow. Eur. J. Immunol. 13: 449-455.
2. Fredericksen, T.L. and Gilmour, D.G. 1985. Influence of genotypes at a non-MHC B lymphocyte alloantigen locus (Bu-1) on expression of Ia (B-L) antigen on chicken bursal lymphocytes. J. Immunol. 134: 754-756.
3. Gilmour, D.G., Collins, W.M., Fredericksen, T.L., Urban, W.E., Ward, P.F. and DiFronzo, N.L. 1986. Genetic interaction between non-MHC T- and B-cell alloantigens in response to Rous sarcomas in chickens. Immunogenetics 23: 1-6.
4. Houssaint, E., Diez, E. and Pink, J.R. 1987. Ontogeny and tissue distribution of the chicken Bu-1a antigen. Immunology 62: 463-470.
5. Veromaa, T., Vainio, O., Eerola, E. and Toivanen, P. 1988. Monoclonal antibodies against chicken Bu-1a and Bu-1b alloantigens. Hybridoma 7: 41-48.
6. Veromaa, T., Vainio, O., Jalkanen, S., Eerola, E., Granfors, K. and Toivanen, P. 1988. Expression of B-L and Bu-1 antigens in chickens bursectomized at 60 h of incubation. Eur. J. Immunol. 18: 225-230.
7. Houssaint, E., Lassila, O. and Vainio, O. 1989. Bu-1 antigen expression as a marker for B cell precursors in chicken embryos. Eur. J. Immunol. 19: 239-243.
8. Funk, P.E., Tregaskes, C.A., Young, J.R. and Thompson, C.B. 1997. The avian chB6 (Bu-1) alloantigen can mediate rapid cell death. J. Immunol. 159: 1695-1702.
9. Rothwell, C.J., Vervelde, L. and Davison, T.F. 1997. Identification of chicken Bu-1 alloantigens using the monoclonal antibody AV20. Vet. Immunol. Immunopathol. 55: 225-234.

SOURCE

Bu-1a/b (AV20) is a mouse monoclonal antibody raised against bursal cells from one day old H.B15 (Bu-1a/b) strain avians.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bu-1a/b (AV20) is available conjugated fluorescein (sc-52451 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

APPLICATIONS

Bu-1a/b (AV20) is recommended for detection of Bu-1a and Bu-1b of avian origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Molecular Weight of Bu-1a/b: 24 kDa.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.