SANTA CRUZ BIOTECHNOLOGY, INC.

HLA-B27 (EP-4): sc-59233

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Major histocompatibility complex (MHC) molecules form an integral part of the immune response system. They are cell-surface receptors that bind peptides and present them to T lymphocytes. Human leukocyte antigens (HLAs) are polymorphic members of the MHC family that are specifically involved in the presentation of antigens to the T cell receptor. There are two classes of HLA antigens: class I (HLA-A, HLA-B and HLA-C) and class II (HLA-D). Class I molecules are expressed in nearly all cells and play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum. The differential structural properties of MHC class I and class II molecules account for their respective roles in activating different populations of T lymphocytes. HLA-B encodes a membrane anchored heavy chain which hetero-dimerizes with a light chain (β-2-Microglobulin) to form MHC-I. Polymorphisms yield hundreds of HLA-B alleles. The HLA-B27 allele appears with increased frequency in uveitis patients.

REFERENCES

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2. El-Shabrawi, Y., et al. 2006. Polymorphisms within the tumor necrosis factor α promoter region in patients with HLA-B27-associated uveitis: association with susceptibility and clinical manifestations. Ophthalmology 113: 695-700.
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4. Olivieri, I., et al. 2006. Successful treatment of juvenile-onset HLA-B27-associated severe and refractory heel thesitis with adalimumab documented by magnetic resonance imaging. Rheumatology 45: 1315-1317.
5. Downing, J., et al. 2006. A high-resolution polymerase chain reaction-sequence-specific primer HLA-B*27 typing set and its application in routine HLA-B27 testing. Genet. Test. 10: 98-103.
6. Okhravi, N. 2006. Comment on "Clinical features and outcomes of HLA B27 positive negative acute anterior uveitis in a Turkish patient population". Ocul. Immunol. Inflamm. 14: 137-138.
7. Singleton, E.M., et al. 2006. Anterior uveitis, inflammatory bowel disease, and ankylosing spondylitis in a HLA-B27-positive woman. South. Med. J. 99: 531-533.
8. Tran, T.M., et al. 2006. Additional human β-2-Microglobulin curbs HLA-B27 misfolding and promotes arthritis and spondylitis without colitis in male HLA-B27-transgenic rats. Arthritis Rheum. 54: 1317-1327.

CHROMOSOMAL LOCATION

Genetic locus: HLA-B (human) mapping to 6p21.33.

SOURCE

HLA-B27 (EP-4) is a mouse monoclonal antibody raised against lymphocytes from an HLA-B27 individual of human origin.

PRODUCT

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

APPLICATIONS

HLA-B27 (EP-4) is recommended for detection of HLA-B27 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HLA-B27: 30 kDa.

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 for detailed protocols and support products.