Data Sheet

Anti-NY-ESO-1 Antibody, Mouse Monoclonal

Clone E978, purified from hybridoma cell culture

N2038

Product Description

Anti-NY-ESO-1 Monoclonal (mouse IgG1 isotype) is derived from the hybridoma E978 produced by the fusion of mouse myeloma cells (SP2/0) and splenocytes from BALB/c mice immunized with human recombinant NY-ESO-1 (Gene ID: 1485). The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Cat. No. ISO2.

Monoclonal Anti-NY-ESO-1 recognizes human[1-3] NY-ESO-1. The antibody may be used in ELISA, immunoblotting (~ 23 kDa),[1-2] and immunohistochemistry.[2-3]

Cancer/testis (CT) antigens are the protein products of genes that are activated in a wide variety of tumors and can elicit autologous cellular and humoral immune responses. Their normal expression is restricted to male germ cells in the testis, and they are not expressed in adult somatic tissues. Therefore, CT antigens are promising candidates for cancer immunotherapy.[4] Approximately 20 CT antigens or antigen families have been identified to date. NY-ESO-1 is a CT protein to which cell-mediated immune response has been demonstrated. The gene was cloned from an esophageal carcinoma cDNA expressing library using autologous patient serum. The protein is expressed in normal testis and to a much lower extent in placenta, ovary and uterus. However, it is mainly expressed in many different cancers.[5] For example, patients with melanoma contain tumor-infiltrating lymphocytes cells (TILs) that recognized NY-ESO-1 protein.[6] The expression of genes encoding CT antigens was examined in sporadic medullary thyroid carcinoma. The expression of NY-ESO-1 was found in 65 percent of the samples and correlated with tumor recurrence in primary MTC tumors.[7] Furthermore, high frequency of expression was found in breast cancer especially in benign lesions[2] and in multiple myeloma.[8] Due to its wide expression in different cancers, NY-ESO-1 protein was used as a vaccine in cancer patients. A humoral and cellular response was obtained in many patients. Furthermore, in patients with melanoma, the natural course of the disease was favorably influenced by this treatment.[9]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~ 1 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: A working concentration of 1-2 µg/mL is recommended using SKMel-37 total cell extract.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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