Anti-B23 antibody, Mouse monoclonal
clone FC82291, purified from hybridoma cell culture

Product Number B0556

Product Description
Anti-B23 antibody, Mouse monoclonal
(Nucleophosmin/NPM) (mouse IgG1 isotype) is derived
from the FC82291 hybridoma produced by the fusion of
mouse myeloma cells and splenocytes from a CD-1
mouse immunized with a purified rat B23. It is determined by a double diffusion immunoassay using
Mouse Monoclonal Antibody Isotyping Reagents,
Product Number ISO2. The antibody is purified from
culture supernatant of hybridoma cells, grown in a
bioreactor.

Anti-B23 antibody, Mouse monoclonal recognizes
specifically B23 (also called nucleophosmin, NPM,
numatrin or NO38). The epitope recognized by the antibody lies
within the 68 amino acids at the C-terminus of B23. The antibody may be used for ELISA, competitive
ELISA, immunoprecipitation, immunocytochemistry
(2% formaldehyde-acetone or 10% formalin/methanol-1% NP-40) and microinjection (blocks the initiation of centrosome duplication). Reactivity has been observed with human, monkey,
bovine, dog, hamster (weak), rat, kangaroo rat, and mouse B23.

B23 (also known as NPM, nucleophosmin, numatrin or
NO38) is a phosphoprotein, widely expressed in all cell
types, and localized in granular regions of the nucleolus
associated with pre-ribosomal particles. This protein
was found to be involved in several nuclear functions
such as assembly and/or intranuclear transport of pre-
ribosomal particles, cytoplasmic/nuclear trafficking,
regulation of DNA polymerase α activity and
centrosome duplication. Phosphorylation of B23 is
mediated by a cyclin complex, CDK2/cyclin E.

This phosphorylation causes the dissociation of B23
from the centrosome and enables the duplication of the
centrosome during cell mitosis. B23 was also found to
be involved in pro-myelocytic leukemia in which the
gene for B23 fuses with retinoic acid receptor α (RARα). As a consequence, a fusion protein
(60-70 kDa) is produced containing parts of the two
genes. Monoclonal antibody reacting specifically with
B23 is a useful tool for the study of the involvement of
B23 in nuclear functions, cytoplasmic/nuclear
trafficking, and centrosome duplication.

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 1% bovine serum albumin and
15 mM sodium azide as a preservative.

Antibody Concentration: Approx. 0.5 mg/ml.

Precautions and Disclaimer
This product is 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 to 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
0.2-0.4 μg/ml is determined using a whole extract of 3T3 (mouse fibroblasts) cells.

Note: In order to obtain best results in different
techniques and preparations we recommend
determining optimal working concentration by
titration test.
References