P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

Double Stranded DNA (dsDNA) (Nuclear Marker); Clone 121-3
(Concentrate)

Availability/Contents:

Item #	Volume
RA0633-C.1	0.1 ml
RA0633-C.5	0.5 ml
RA0633-C1	1 ml

Description:

Species:	Mouse
Immunogen:	Nuclei of Burkitt's cells
Clone:	121-3
Isotype:	IgG3 / Kappa
Entrez Gene ID:	Not Known
Hu Chromosome Loc.:	Not Applicable
Synonyms:	N/A, N/A, Not Applicable
Mol. Weight of Antigen:	Not Known
Format:	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Specificity:	This monoclonal antibody is part of a new panel of reagents, which recognizes subcellular organelles or compartments of human cells.
Background:	These markers may be useful in identification of these organelles in cells, tissues, and biochemical preparations. This MAb recognizes the double stranded DNA in human cells. It can be used to stain the nuclei in cell or tissue preparations and can be used as a nuclear marker in human cells. This MAb produces a homogeneous staining pattern in the nucleus of normal and malignant cells.Deoxyribonucleic acid (DNA) is a long polymer of nucleotides that is held together by a backbone made of sugars and phosphate groups. It holds the genetic instructions for the development and function of living things. DNA is crucial for living organisms, and all known cellular life and some viruses contain DNA. In eukaryotes, DNA exists in the cell nucleus, while in prokaryotes; DNA is located in the cytoplasm. In living organisms, DNA does not usually exist as a single molecule, but instead as a tightly associated pair of molecules in the shape of a right-handed double helix. Hydrogen bonds as well as forces generated by the hydrophobic effect and pi stacking hold the two DNA strands together. During replication and transcription, portions of the helix unwind and become single stranded. Protective proteins surround these single-stranded DNA. Double stranded (ds) DNA markers are useful tools in biology research and aid in the study of DNA behavior and characteristics.
Species Reactivity:	Human
Positive Control:	Jurkat or HeLa cells. Tonsil or Colon., Raji
Cellular Localization:	N/A
Titer/ Working Dilution:	Immunohistochemistry (Frozen and Formalin-fixed): 1-2 µg/ml Flow Cytometry: 1-2 µg/million cells
Microbiological State:	This product is not sterile.

Storage: 2° C  8° C

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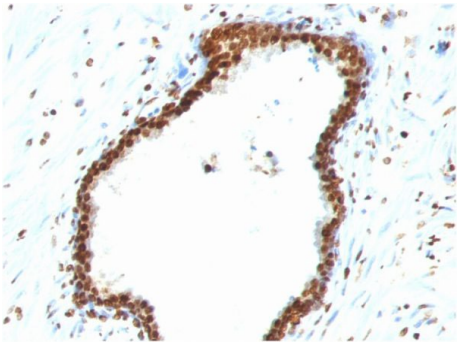
Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Non-Sterile.

Ordering Information and Current Pricing at www.scytek.com



Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with Double Stranded DNA Mouse Monoclonal Antibody (121-3).

Procedure:

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Tris-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the “UltraTek HRP Anti-Polyvalent Lab Pack” (ScyTek catalog# UHP125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

References:

1. Epstein, A.L. and Clevenger, C.V., Identification of nuclear antigens in human cells by immunofluorescence, immunoelectron microscopy, and immuno-biochemical methods using monoclonal antibodies. In Progress on nonhistone protein research, Vol. 1, Isaac Bekhor, ed., 1985, CRC Press, Boca Raton, FL, pp 117-137

Warranty:

No products or “Instructions For Use (IFU)” are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

Storage: 2° C 8° C

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