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**MONOCLONAL ANTIBODY TO BENZO[A]PYRENE-DIOL-EPOXIDE MODIFIED DNA (BPDE-DNA)
clone 5D11**

Catalog Number: GenWay ID: GWB-37BE55 Legacy ID: 20-321-175264

Description: A number of chemicals, including polycyclic aromatic hydrocarbons (PAHs), have been shown to bind to DNA. This DNA damage can occur both early and late in the malignant process, thereby acting as an initiator and assisting in the progression of tumors. PAHs are released into the environment following incomplete combustion of organic materials. The most common sources of PAHs are from smoking and from consuming broiled or grilled foods. Human exposure to PAHs comes from various occupational, environmental, dietary and medicinal sources. Benzo[a]pyrene is a representative PAH. Antibodies to benzo[a]pyrenediol-epoxide modified DNA (BPDE-DNA) can be used to identify polycyclic aromatic hydrocarbon (PAH)-DNA adducts. Exposure to this group of compounds is believed to be carcinogenic. The monoclonal antibody 5D11 recognizes BPDE-I-DNA (PAH-DNA).

Immunogen: BPDE-I-DNA complexed with methylated BSA

Species: Mouse IgG2a

Formulation 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.

Applications: Flow Cytometry, Immunoassays, Immuno Fluorescence, and Immuno Precipitation, IHC-P

Application notes: FC: Washed sperm was fixed in 2% paraformaldehyde and permeabilized with 0.2% triton x-100/0.1% sodium citrate. Samples were treated with protK and RNase. To denature DNA samples were incubated with 4N HCl. After blocking with 5% normal serum samples were incubated with mAb.

IA: plates were coated with 50 ng/well BPDE-DNA in 50mM Tris-buffer pH7.5 o/n at 4°C. Plates were blocked 1% FCS. DNA samples, 4µg, were mixed with 5D11 and added to the well. Detection with GtaMs-IgG-AP for 90' at 37°C.

P: 5 µm sections were RNase and prot-K treated. DNA was denatured with 4N HCl and neutralized with 50mM Tris base. Section was blocked with 1.5% normal horse serum.

Use: For immunohistochemistry dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10.

Storage and stability: Product should be stored at 4°C. Under recommended storage conditions, product is stable for atleast one year. The exact expiry date is indicated on the label.

Precautions: For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. GenWay Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.