PRODUCT INFORMATION

Cat. No. SQM004.1 (50 µg)

Monoclonal Antibody to O^6-Ethyl-2-Deoxyguanosine (EM 21)

- Detects a specific mutagenic DNA modification induced by several exogenous and endogenous carcinogens e.g. food, smoking, cancer therapeutics, environmental carcinogens, workplace carcinogens
- Molecular epidemiology of carcinogen exposure
- Pre- and intratherapeutic dosimetry of exposure to anticancer agents
- Basic research of molecular mechanisms of carcinogenesis
- Mutagenicity testing of substances

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Product Data

Catalogue No:	SQM004.1
Product Name:	Monoclonal Antibody to O^6-Ethyl-2-deoxyguanosine
Product Size:	50 µg
Tested with:	human, mouse, rat
Clone:	EM 21
Isotype:	mouse IgG1
Formulation:	lyophilized
Reconstitution and Storage:	Store lyophilized product at -20°C until opened. After opening, restore with 0.5 ml PBS/NaN_3/1% BSA to a final concentration 100 µg/ml Mab. After dilution, do not use for more than one day. For extended storage after reconstitution we suggest aliquoting and storage at –20°C
Immunogen:	O^6-ethyl-2-deoxyguanine
Purification:	Antibody was isolated from supernatant by Protein G affinity purification
Antibody specificity:	The antibody efficiently crossreacts with O^6-methyl-2-deoxyguanine
Tested Application:	Competitive Radioimmunoassay ELISA Immuno-Slot-Blot-Assay Not suitable for Immunohistochemistry

Specifity of EM 21 measured by the competitive radioimmunoassay (RIA)

Affinity constant for O^6-ethyl-2-deoxyguanosine	**2.4 x 10^{10} (l/Mol)**
RIA-detection limit for	*(pMol)*
O^6-EtdGuo	0.04
O^6-EtGuo	4.9
O^6-EtGua	55
O^4-EtdThd	1.2 x 10^5
O^2-EtdThd	1.3 x 10^4
O^6-MedGuo	2.9
O^6-iProdGuo	0.06
O^6-BudGuo	0.02
dGuo	1.6 x 10^5
dAdo	5.2 x 10^5
dIno	1.5 x 10^5
DNA-hydrolysate	3.0 x 10^5

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References

1. LeDoux et al. Glial cell-specific differences in repair of O^6-methylguanine. Cancer Research (1996); 56, 5615-5619.
2. Van Delft et al. Determination of N^7- and O^6-methylguanine in rat liver DNA after oral exposure to hydrazine by use of immunochemical and electrochemical detection methods. Fundamental and applied Toxicology (1997); 35, 131-137.
3. Goto et al. Mutagenicities of N-nitrosodimethylamine and N-nitrosodiethylamine in Drosophila and their relationship to the levels of O-alkyl adducts in DNA. Mutation Research (1999); 425, 125-134.

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