PRODUCT INFORMATION

Cat. No. SQM003.1 (50 µg)

Monoclonal Antibody to O^6-Methyl-2-Deoxyguanosine (EM 2-3)

- 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:	SQM003.1
Product Name:	Monoclonal Antibody to O^6-methyl-2-deoxyguanosine
Product Size:	50 µg
Tested with:	human, mouse, rat, hamster
Clone:	EM 2-3
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. 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-methyl-2-deoxyguanosine
Purification:	The antibody was isolated from supernatant by Protein G affinity purification
Antibody specificity:	In immunocytochemistry the antibody crossreacts efficiently with O^6-ethyl-2-deoxyguanosine and O^6-butyl-2-deoxyguanosine
Tested Application:	Competitive Radioimmunoassay ELISA Immunoaffinity/Quantitative PCR Immunocytochemistry: 0.05 – 0.2 µg/ml PBS containing 3% bovine serum albumin

Specifity of EM 2-3 measured by the competitive radioimmunoassay (RIA)

Affinity constant for O^6-methyl-2-deoxyguanosine	**4.0×10^8 (l/Mol)**
RIA-detection limit for	*(pMol)*
O^6-MedGuo	0.69
O^6-MeGuo	4.1
O^6-EtdGuo	0.14
O^4-MedThd	406
O^2-MedThd	300
O^6-iProdGuo	0.16
O^6-BudGuo	5.1
7-MeGuo	87
3-MeAde	5022
dGuo	4.9×10^4
dAdo	8734
dIno	1.3×10^5
DNA-Hydrolysate	1.0×10^5

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References

1. Seiler et al. Formation and persistence of the miscoding DNA alkylation product O^6-ethylguanine in male germ cells of the hamster. Mutation Research 385 (1997); 11, 2087-2094.
2. Engelbergs et al. Fast repair of O^6-ethylguanine, but not O^6-methylguanine, in transcribed genes prevents mutation of H-ras in rat mammary tumorigenesis induced by ethylnitrosourea in place of methylnitrosourea. Proc. Natl. Acad. Sci. USA (1998); 95, 1635-1640.

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