

PRODUCT INFORMATION

Monoclonal Antibody to 3-Ethyl-adenine (EM6-47)

Cat. No. SQM013.1 (50 µg)

- 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

Product Data

Catalogue no:	SQM013.1
Product name:	monoclonal antibody to 3-ethyl-adenine
Product size:	50 µg
Tested with:	human, rat
Clone:	EM 6-47
Isotype:	mouse IgG1
Formulation:	lyophilized
Reconstitution and Storage:	store lyophilized product at –20°C until opened. After opening, restore with 0.5 ml with PBS/NaN ₃ /1% BSA to a final concentration of 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:	3-ethyl-adenine
Purification:	the antibody was isolated from supernatant by Protein G affinity purification
Tested Application:	competitive Radioimmunoassay (RIA), ELISA

Specificity of EM 6-47 measured by the competitive radioimmunoassay (RIA)

Affinity constant for 3-ethyl-adenine	4.7 x 10 ⁹ (l/Mol)
<i>RIA-detection limit for</i>	<i>(pMol)</i>
3-EtAde	0,09
3-MeAde	1.5
3-BuAde	0.06
Tricanthen	0.18
Adenine	1.1 x 10 ⁴
Adenosine	3.0 x 10 ⁵
7-MeGua	7.0 x 10 ⁴
1-MeAde	1.1 x 10 ⁴
2-MeAde	1.3 x 10 ⁵
Theophylline	1.7 x 10 ⁴
Caffeine	1.4 x 10 ⁵
Folic acid	3.0 x 10 ⁴
Uric acid	1.5 x 10 ⁵

References

1. Eberle et al. Monoclonal antibodies for the specific detection of 3-alkyladenines in nucleic acids and body fluids. *Carcinogenesis* (1990); 10, 209-212.
2. Glüsenkamp et al. Tautomer-specific anti- (N-3 substituted)-adenine antibodies: New tools in molecular dosimetry and epidemiology. *Angew. Chem. Int. Ed. Engl.* (1993); 32, 1640-1643.

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