## Anti- acrolein (ACR) Monoclonal Antibody

H<sub>2</sub>C=C—C=0

0-C N C

Acrolcin

N \* -(3-formyl-3,4-dehydropiperidino)-lysine

Acrolein (ACR) is a representative carcinogenic aldehyde found ubiquitously in the environment and formed endogenously through oxidation reactions, such as lipid peroxidation and myeloperoxidase catalyzed amino acid oxidation. ACR is highly reactive aldehyde and reacts with lysine residue in protein. The reaction with ACR and lysine residue leads to the formation of numerous numbers of adducts, such as formyl-dehydropiperidino-lysine (FDP-lysine) type derivative. This antibody is specific for the ACR modified protein, especially FDP-lysine type derivative.

**Catalog #:** MAR-020n / MAR-100n (20 / 100  $\mu$  g of lgG)

**Clone #:** 5F6

**Immunogen:** ACR-modified keyhole-lympet hemocyanine

Subclass: Mouse IgG<sub>1 kappa</sub>

**Application:** Immunohistochemistry; It is recommended that the antibody be tried at

0.5-1.0  $\mu$  g/mL on paraformaldehyde fixed tissue

**Buffer** Frozen. (10mM PBS containing 0.1 %NaN<sub>3</sub> and 0.5% BSA)

**Concentration:** 100  $\mu$  g/mL lgG.

**Specificity:** Specific for ACR-modified protein (especially FDP-lysine type derivative)

Storage: Less than -20°C

**Stability:** Maintain at -20°C undiluted aliquots for up to 6 months after date of

receipt. For long term storage, aliquot product into individual tubes and

freeze at -20 or -70°C. Avoid repeated freeze/defrost cycles.

**Reference:** 1) Protein-bound acrolein: Potential markers for oxidativestress. K.Uchida, M.Kanematsu, K.Sakai, T.Matsuda, N.Hattori, Y.Mizuno, D.Suzuki, T.Miyata,

N.Noguchi, E.Niki, T.Osawa, Proc.Natl.Acad.Sci.USA,95,4882-4887(1998)

2) Protein-bound acrolein: A novel markers of oxidativestress in Alzheimer's Disease. Noel Y. Calingasan, Koji Uchida, and Gary E.Gibson, Journal of

Neurochemistry.72(2),751-756(1999)

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