

# Produktinformation



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Anti-Acrolein-modified protein [5F6] Bulk Size, 1 mg, Ab03552-23.0-BT View online

## Anti-Acrolein-modified protein [5F6] Bulk Size Ab03552-23.0-BT

Isotype and Format: Rabbit IgG, Kappa

Clone Number: 5F6

Alternative Name(s) of Target: Acrolein modified protein; ACR-P; ACRL

**UniProt Accession Number of Target Protein:** 

Published Application(s): WB, ELISA, IHC

Published Species Reactivity: Species independent

**Immunogen:** The original antibody was generated by immunizing BALB/c mice with an acrolein-treated keyhole limpet hemocyanin (KLH).

**Specificity:** This antibody is specific for acrolein-modified proteins. Protein modification by acrolein is largely attributed to the formation of acrolein-lysine and acrolein-histidine adducts that possess a carbonyl function. While the antibody has been raised against acrolein-modified KLH, it has been shown to recognize both acrolein-modified BSA and oxidized LDL.

**Application Notes:** A direct ELISA examined the immunoreactivity of this antibody to aldehyde-treated proteins. It was scarcely inhibited by N<sup>a</sup>-acetyl-N<sup>im</sup>-propanal-histidine and significantly inhibited by N<sup>a</sup>-acetyl-FDP-lysine, indicating that FDP-lysine (N<sup> $\epsilon$ </sup>-(3-formyl-3,4-dehydropiperidino)lysine) is an epitope. This antibody was also used for immunohistochemistry (IHC) detection of protein-bound acrolein in fatty streak lesions of arterial tissue (Uchida et al., 1998; PMID: 9560197). This antibody was used in flow cytometry (FC) to detect protein-bound acrolein in activated human T cells (Fonseca et al., 2001; PMID: 11342443). A novel pyridinium-type lysine adduct, N<sup> $\epsilon$ </sup>-(3-methyl-pyridinium)lysine (MP-lysine), was investigated and found to be a major epitope of this antibody (Furuhata et al., 2003; PMID: 14504272). This antibody was used for IHC to detect oxidative stress in the testis of rats (luchi et al., 2004; PMID: 14673659). This antibody was used for WB to detect acrolein modification of apoE3-NT (Tamamizu-Kato et al., 2007; PMID: 17580963).

Antibody First Published in: Uchida et al. Protein-bound acrolein: potential markers for oxidative stress.
Proc Natl Acad Sci USA. 1998 Apr 28;95(9):4882-7. doi: 10.1073/pnas.95.9.4882 PMID:9560197
Note on publication: The original publication describes the development of the antibody, which recognizes protein-bound acrolein, a potential marker of oxidative stress and long-term protein damage in aging, atherosclerosis, and diabetes.

### **Product Form**

Size: 1 mg Purified antibody in bulk size. Purification: Protein A affinity purified Supplied In: PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.