

## Datasheet: AHP1251

<b>Description:</b>	GOAT ANTI 4-HYDROXYNONENAL
<b>Specificity:</b>	4-HYDROXYNONENAL
<b>Format:</b>	Serum
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	0.1 ml

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			1/10000
Immunoprecipitation			■	
Western Blotting	■			1/3000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Broad
<b>Product Form</b>	Serum - liquid
<b>Antiserum Preparation</b>	Antisera to 4-hydroxynonenal were raised by repeated immunisations of goats with highly purified antigen.
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Immunogen</b>	4-hydroxynonenal conjugate.

### Specificity

**Goat anti 4-hydroxynonenal antibody** recognises 4-hydroxynonenal (HNE). HNE is a ~65 kDa, highly reactive aldehyde released upon oxidation of omega-6-insaturated fatty acids, often by free radicals. HNE acts to spread and increase the initial effects of free radical events. It binds nucleic acids, phospholipids and sulfhydryl, histidine and lysine groups. These conjugates cause the cytotoxic effects (including cell death) that occur during oxidative stress due to hydrogen peroxide, superoxide, UV, heat and oxidant chemicals. HNE plays a role in the pathogenesis of diseases, stimulating fibrogenesis and inflammation. It is thought to act as a sensor of external stimuli, inducing the stress response by modulating membrane receptors such as Epidermal growth factor receptor or Fas.

It is thought that constitutive levels of HNE may be needed for normal cell functions as decreased HNE levels are associated with cell proliferation and increased HNE levels with elevated apoptosis.

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**Further Reading**

1. Boon, P. *et al.* (1999) Glutathione Conjugation of 4-Hydroxy-trans-2,3-nonenal in the Rat in Vivo, the Isolated Perfused Liver and Erythrocytes. [Toxicol. Appl. Pharmacol. 159:214-23.](#)
2. Dwivedi S, *et al.* (2007) Role of 4-hydroxynonenal and its metabolites in signaling. [Redox. Rep. 12:4-10.](#)

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**Storage**

Store at +4°C or at -20°C if preferred.  
Storage in frost-free freezers is not recommended.  
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life** 18 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation #20362 available at: 20362: <https://www.bio-rad-antibodies.com/uploads/MSDS/20362.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Goat IgG (Fc) (STAR122...) [FITC](#), [HRP](#)

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