# Datasheet: AHP995

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| **Description:** | RABBIT ANTI HUMAN APOBEC3G (N-TERMINAL) |
| **Specificity:** | APOBEC3G (N-TERMINAL) |
| **Other names:** | CEM15 |
| **Format:** | Purified |
| **Product Type:** | Polyclonal Antibody |
| **Isotype:** | Polyclonal IgG |
| **Quantity:** | 0.1 mg |

## 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.

| | Yes | No | Not Determined | Suggested Dilution |
|---|---|---|---|---|
| Flow Cytometry | | | ▪ | |
| Immunohistology - Frozen | | | ▪ | |
| Immunohistology - Paraffin (1) | ▪ | | | 1ug/ml |
| ELISA | | | ▪ | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | ▪ | | | 5ug/ml |

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.

(1)**This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.**

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| **Target Species** | Human |
| **Product Form** | Purified IgG - liquid |
| **Preparation** | Antisera to human APOBEC3G (NT) were raised by repeated immunisation of rabbits with highly purified antigen.<br><br>Purified IgG prepared by affinity chromatography. |
| **Buffer Solution** | Phosphate buffered saline |
| **Preservative Stabilisers** | 0.02% Sodium Azide ($NaN_3$) |
| **Approx. Protein Concentrations** | IgG concentration 1.0mg/ml |

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| **Immunogen** | A 15 amino acid peptide located near human APOBEC3G amino-terminus. |
| **External Database Links** | **UniProt:**<br>Q9HC16 Related reagents<br><br>**Entrez Gene:**<br>60489 APOBEC3G Related reagents |
| **Specificity** | **Rabbit anti Human AID antibody** recognises an epitope within the N-terminal region (NT) of APOBEC3G (apolipoprotein B mRNA-editing, enzyme-catalytic, polypeptide-like 3G), a ~46 kDa multi-isoform endogenous deoxycytidine deaminase, which plays a major role in the defence of T lymphocytes against retroviral infection.<br><br>The incorporation of APOBEC3G into HIV-1 virion DNA, results in the deamination of dC to dU in minus-strand viral DNA during reverse transcription, thereby generating G to A hypermutations in the newly-synthesised viral DNA. The effect of APOBEC3G is counteracted by the HIV protein Vif, thought to induce the degradation of APOBEC3G through a ubiquitin-dependant proteasomal pathway.<br><br>Rabbit anti Human AID antibody (AHP995) also detects the APOBEC3F isoform (apolipoprotein B mRNA-editing, enzyme-catalytic, polypeptide-like 3F). |
| **Histology Positive Control Tissue** | Spleen |
| **Western Blotting** | AHP995 detects a band of approximately 46kDa in Human CaCO-2 cell lysates. |
| **Further Reading** | 1. Goncalves, J. and Santa-Marta, M. (2004) HIV-1 Vif and APOBEC3G: multiple roads to one goal.. Retrovirology. 28(1): 1.<br>2. Chiu, Y-L. *et al*. (2005) Cellular APOBEC3G restricts HIV-1 infection in resting CD4+ T cells. Nature. 435: 108-114.<br>3. Zhang, H. *et al*. (2003) The cytidine deaminase CEM15 induces hypermutation in newly synthesized HIV-1 DNA. Nature. 424: 94-98. |
| **Storage** | Store at +4$^{o}$C or at -20$^{o}$C if preferred.<br>Storage in frost-free freezers is not recommended.<br>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. |
| **Shelf Life** | 18 months from date of despatch. |
| **Health And Safety Information** | Material Safety Datasheet documentation #10040 available at:<br>10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf |
| **Regulatory** | For research purposes only |

# Related Products

## Recommended Secondary Antibodies

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| Sheep Anti Rabbit IgG (STAR34...) | FITC |

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| Sheep Anti Rabbit IgG (STAR35...) | RPE |
| Goat Anti Rabbit IgG (H/L) (STAR124...) | HRP |
| Goat Anti Rabbit IgG (Fc) (STAR121...) | Biotin, FITC, HRP |
| Sheep Anti Rabbit IgG (2AB02...) | Biotin |
| Sheep Anti Rabbit IgG (STAR36...) | DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800 |

## Recommended Useful Reagents

ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025A)
ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025C)
TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP (STAR209P)


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