

## Datasheet: AHP3062

<b>Description:</b>	RABBIT ANTI TRI-METHYL-HISTONE H3 (Lys4)
<b>Specificity:</b>	TRI-METHYL-HISTONE H3 (Lys4)
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			2 µg/ml - 4 µg/ml
Immunofluorescence	▪			1 µg/ml - 2 µg/ml
Chromatin Immunoprecipitation	▪			3 µg per ChIP

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>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Yeast</p> <p>Based on sequence similarity, is expected to react with: Broad</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Antiserum Preparation</b>	Antiserum to tri-methyl-histone H3 (Lys4) was raised by repeated immunization of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography on Protein A.
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative</b>	0.035% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	30% Glycerol
<b>Carrier Free</b>	Yes
<b>Immunogen</b>	A peptide including tri-methylated lysine 4 of histone H3
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P68431</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">8968</a>    HIST1H3F    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	H3FA, H3FB, H3FC, H3FD, H3FF, H3FH, H3FI, H3FJ, H3FK, H3FL
<b>Specificity</b>	<p><b>Rabbit anti Human tri-methyl-histone H3 (Lys4) antibody</b> recognizes histone H3 when tri-methylated at lysine 4.</p> <p>Histone H3 is one of the four core histones that make up the nucleosome core particle. Histone H3 is one of the four core histones that make up the nucleosome core particle. Nucleosomes are the smallest subunit of chromatin and are made up of 146 bp of DNA wrapped around an octamer comprised of pairs of the four core histones (H2A, H2B, H3, and H4) (<a href="#">Smith, 1991</a>). Histones can be mono-, di- or tri-methylated by histone methyltransferases. Depending on which amino acid residues are methylated, methylation of histones may increase or decrease the transcription of genes. Methylation events that weaken the binding between histone tails and DNA lead to increased transcription because they make the DNA more accessible to transcription factor proteins and RNA polymerase. Methylation of histones is therefore crucial for the regulation of gene expression (<a href="#">Gupta et al. 2010</a>). Lysine 4 of histone H3 may be mono-, di- or tri-methylated by various histone methyltransferases (HMTs), including SET1 and ASH1. Histone H3 may also be demethylated at Lysine 4 by the demethylase LSD1. Tri-methylation of histone H3 at lysine 4 usually leads to transcriptional activation (<a href="#">Strahl et al. 1999</a>).</p> <p>Wide species cross-reactivity is expected from Rabbit anti Human tri-methyl-histone H3 (Lys4) antibody based on sequence.</p>
<b>Storage</b>	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch

**Health And Safety  
Information**

Material Safety Datasheet documentation #10049 available at:  
<https://www.bio-rad-antibodies.com/SDS/AHP3062>  
10049

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
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