

# Anti-Histone H3 (K27me3) antibody

Catalog: PHY6205A

## Product Information

<b>Description:</b>	Rabbit polyclonal antibody
<b>Background:</b>	Histone H3 is one of the five main histone proteins involved in the structure of chromatin in eukaryotic cells. H3 is involved with the structure of the nucleosomes of the 'beads on a string' structure. Histone H3 is an important protein in the emerging field of epigenetics, where its sequence variants and variable modification states are thought to play a role in the dynamic and long term regulation of genes.  This is H3 (K27me3) antibody.
<b>Synonyms:</b>	H3 (K27me3), H3K27me3, H3K27 Tri-Methylation, Tri-Methyl-Histone H3 (Lys27), Histone H3 (tri methyl K27)
<b>Immunogen:</b>	KLH-conjugated synthetic peptide, which contains Trimethylated K27 derived from <i>Arabidopsis thaliana</i> H3.1 (AT5G65360).
<b>Form:</b>	Liquid (0.87% NaCl, 0.42% K <sub>3</sub> PO <sub>4</sub> , pH=7.3, 30% glycerol, and 0.01% NaN <sub>3</sub> .)
<b>Quantity:</b>	150 µL
<b>Purification:</b>	Immunogen Affinity Purified
<b>Stability &amp;</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
<b>Storage:</b>	12 months, -20°C under sterile conditions after reconstitution. 1 month, 2 to 8°C under sterile conditions after reconstitution.
<b>Shipping:</b>	The product is shipped at 4°C. Upon receipt, store it immediately at the temperature recommended above.

## Application Information

<b>Recommended Dilution:</b>	Western Blot (1:500-1:1000); IHC (1:50-1:200); IF/IC (1:50-1:200); CHIP (1:10-1:50)  Note: Optimal dilutions/concentrations should be determined by the end user.
<b>Expected / apparent MW:</b>	15 kDa
<b>Confirmed Reactivity:</b>	<i>Arabidopsis thaliana</i> , <i>Homo sapiens</i> , <i>Rattus norvegicus</i> , <i>Mus musculus</i> .

Research Use Only

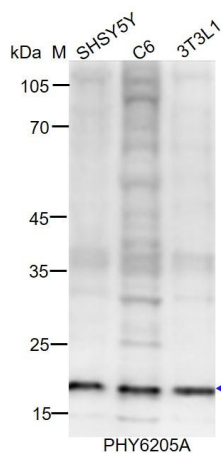
### Predicted Reactivity:

Among species analyzed, the sequence of the synthetic peptide used for immunization is 100% homologues with the sequence in *Zea mays*, *Nicotiana tabacum*, *Glycine max*, *Brassica rapa*, *Hordeum vulgare*, *Solanum tuberosum*, *Oryza sativa*, *Brassica napus*, *Gossypium raimondii*, *Setaria viridis*, *Cucumis sativus*, *Medicago truncatula*, *Triticum aestivum*, *Vitis vinifera*, *Panicum virgatum*, *Solanum lycopersicum*, *Spinacia oleracea*, *Sorghum bicolor*, *Populus trichocarpa*.

The sequence of the synthetic peptide used for immunization is 100% homologues with the sequence in H3.1 (AT5G10400, AT5G10390, AT3G27360, AT1G09200) and 91% homologues with the sequence in H3.3 (AT4G40030, AT5G10980, AT4G40040, AT4G40030), HTR6 (AT1G13370) and HTR14 (AT1G75600).

For more species homologues information, please contact tech support at [tech@phytoab.com](mailto:tech@phytoab.com).

## Application Example Example 1



SHSY5Y: Whole cell lysate protein from SHSY5Y.

C6: Whole cell lysate protein from C6.

3T3L1: Whole cell lysate protein from 3T3L1.

**Electrophoresis:** 12% SDS-PAGE

**Transfer:** blotting to NC (nitrocellulose) membrane for 1 h.

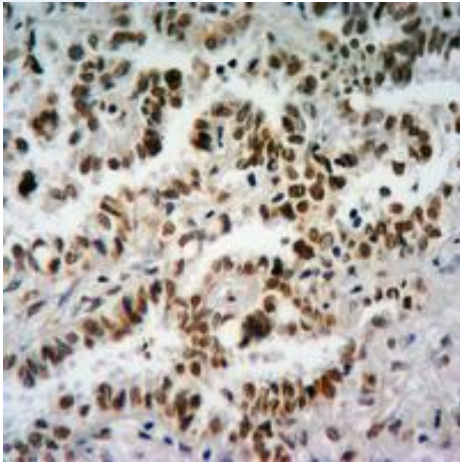
**Blocking:** 5% skim milk at RT or 4°C for 1 h.

**Primary antibody:** 1:1000 dilution overnight at 4°C.

**Secondary antibody:** 1:10000 dilution using Goat Anti-Rabbit IgG H&L (HRP) (Cat# PHY6000).

**Detection:** using chemiluminescence substrate and image were captured with CCD camera.

## Example2



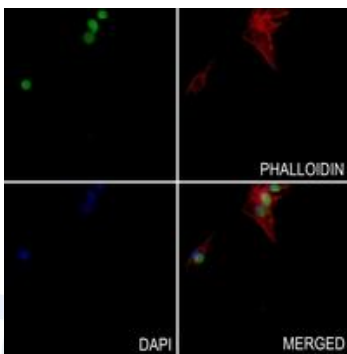
Immunohistochemical analysis of Histone H3 (K27me3) staining in human lung cancer formalin fixed paraffin embedded tissue section.

**Pre-treat:** The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0).

**Incubate:** The section was then incubated with the antibody at room temperature

**Detect and Mount:** HRP conjugated compact polymer system. DAB was used as the chromogen. then counterstained with haematoxylin and mounted with DPX.

## Example3



Immunofluorescent analysis of Histone H3 (K27me3) staining in C6 cells.

**Preprocessing:** 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature.

**Primary Antibody:** Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber/wet box.

**Secondary Antibody:** an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to

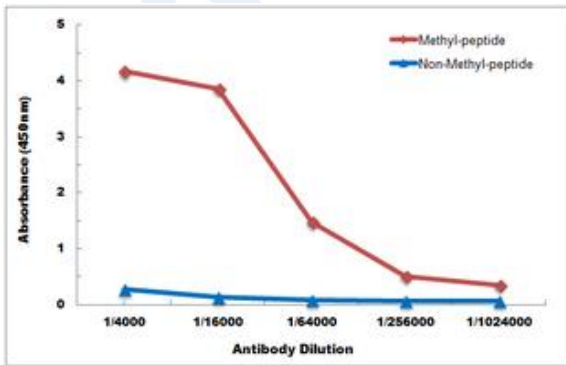
stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

## Example4



Anti-Histone H3 (K27me3) Antibody tested by Chip-seq. Chromatin was prepared from *Arabidopsis thaliana*. Cells were fixed with 1% formaldehyde for 10 minutes. Rabbit IgG was used as the negative control (Input). CHIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads. The image shows H3 (K27me3) binding region on chromosome.

## Example5



Direct ELISA antibody dose-response curve using Anti-Histone H3 (K27me3) Antibody.

**Antigens:** methyl-peptide and non-methyl-peptide concentration is 5 ug/ml.

**Secondary Antibody:** Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody.

**Signal Detect:** signal was developed by TMB substrate.