

**Datasheet for 600-401-I88****Histone H3 K36me3 Antibody****Overview**

|                      |                                                                   |
|----------------------|-------------------------------------------------------------------|
| <b>Description:</b>  | Anti-Histone H3 [Trimethyl Lys36] (RABBIT) Antibody - 600-401-I88 |
| <b>Item No.:</b>     | 600-401-I88                                                       |
| <b>Size:</b>         | 50 µg                                                             |
| <b>Applications:</b> | Dot Blot, IF, Multiplex, WB                                       |
| <b>Reactivity:</b>   | Human, Mouse, C. elegans                                          |
| <b>Host Species:</b> | Rabbit                                                            |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Background:</b>   | The histone modification H3K36me3 is important in the differentiation and maintenance of specialized cells derived from stem cell progenitors. The presence and abundance of H3K36me3 is correlated to the downstream transcription of those pathway components important for cellular functions that differentiate cells from each other. The polycomb repressive complex 2 (PRC2) represses transcription by methylation of H3 lysine 27, but this methylation is inhibited by the presence of the H3K36me3 mark. SETD2 is the main methyltransferase responsible for methylating the H3K36me3. Once methylated, H3K36me3 is highly associated with active transcription factors, and the generation of integral downstream pathways, which move stem cells towards differentiation. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research. |
| <b>Synonyms:</b>     | rabbit anti-Histone H3 trimethyl Lys36 antibody, H3.3B, H3 histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782, H3K36me3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**Target Details**

|                         |                          |
|-------------------------|--------------------------|
| <b>Gene Name:</b>       | HIST2H3C                 |
| <b>Reactivity:</b>      | Human, Mouse, C. elegans |
| <b>PTM Specificity:</b> | Methylation              |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen Type:</b>     | Conjugated Peptide                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Immunogen:</b>          | Histone H3 [Trimethyl Lys36] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic trimethylated peptide surrounding Lysine 36 of human Histone H3.2.                                                                                                                                                                                                                                                    |
| <b>Purity/Specificity:</b> | Anti-Histone H3 [Trimethyl Lys36] was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with human Histone H3.2. A BLAST analysis was used to suggest cross-reactivity with Human, mouse, and C. elegans. Predicted to react with many species including rat, chicken, Xenopus, Drosophila, and plant based on 100% sequence homology. Cross-reactivity with Histone H3 from other sources has not been determined. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q71DI3</a></li><li>• <a href="#">NCBI - NP_001005464</a></li><li>• <a href="#">GenelD - 126961</a></li></ul>                                                                                                                                                                                                                                                                                           |

## Application Details

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Tested Applications:</b> | Dot Blot, IF, Multiplex, WB                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Application Note:</b>    | Anti-Histone H3 [Trimethyl Lys36] antibody is tested for Western Blot, Dot Blot, and Immunofluorescence. This antibody is useful in Chromatin Immunoprecipitation. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~15.4 kDa corresponding to Histone H3 protein by Western Blotting in HeLa histone prep lysate or the appropriate cell lysate or extract. Epi-Plus™ antibody production in collaboration with Novus Biologicals. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>IF:</b>                  | 1:500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>IHC:</b>                 | 1:500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>WB:</b>                  | 1:500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

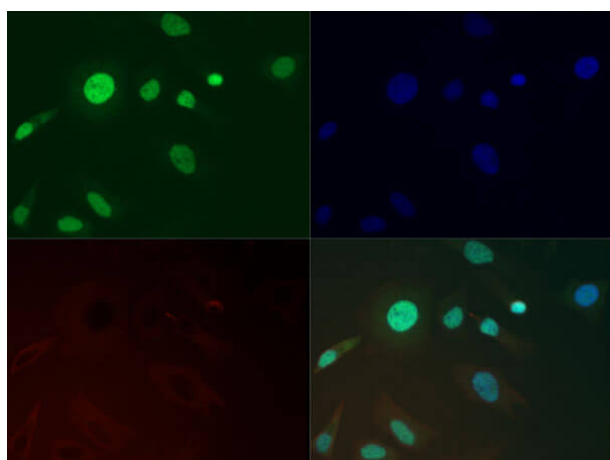
## Formulation

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| <b>Physical State:</b> | Liquid (sterile filtered)                                  |
| <b>Concentration:</b>  | 1.0 mg/mL by UV absorbance at 280 nm                       |
| <b>Buffer:</b>         | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| <b>Preservative:</b>   | 0.01% (w/v) Sodium Azide                                   |
| <b>Stabilizer:</b>     | None                                                       |

## Shipping & Handling

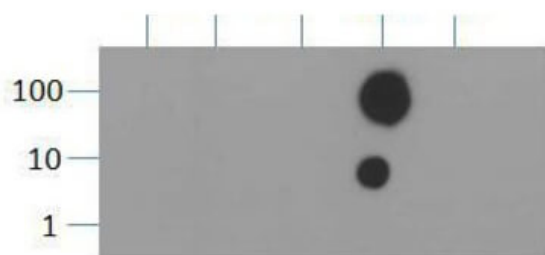
|                            |                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Dry Ice                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage Condition:</b>  | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                         |

## Images



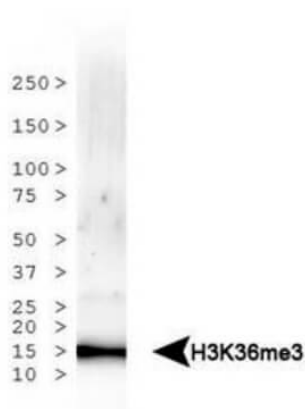
### Immunofluorescence Microscopy

Immunofluorescence of Anti-Histone H3 K36 me3: Histone H3 Me3 Lys36 antibody was tested at 1:500 in HeLa cells with FITC (green). Cells and nuclei were counterstained with DAPI (blue) and DyLight 550 (red). (40X)



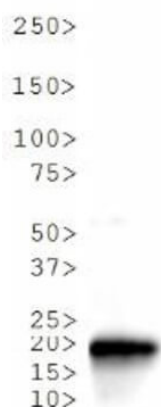
### Dot Blot

Dot Blot of Rabbit Histone H3 [Trimethyl Lys36] Antibody. Lane 1: K36. Lane 2: K36Me1. Lane 3: K36Me2. Lane 4: K36Me3. Lane 5: K36Ac. Load: 1, 10, and 100 picomoles of peptide. Primary antibody: Histone H3 [Trimethyl Lys36] antibody at 0.5 µg/ml for 45 min at 4°C. Secondary antibody: Dylight™488 rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.



#### Western Blot

Western Blot of Rabbit Anti-Histone H3 [Trimethyl Lys36] Antibody. Lane 1: NIH-3T3 histone preps. Load: 30 µg per lane. Primary antibody: Histone H3 [Trimethyl Lys36] at 1:500 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~15 kDa. Other band(s): None.



#### Western Blot

Western Blot of Rabbit Anti-Histone H3 [Trimethyl Lys36] Antibody. Lane 1: C. elegans embryo lysate. Load: 30 µg per lane. Primary antibody: Histone H3 [Trimethyl Lys36] at 1:500 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~15 kDa. Other band(s): None.

## Disclaimer

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