

# HP1 gamma Monoclonal Antibody (2MOD-1G6)

| Product Details    |                                  |
|--------------------|----------------------------------|
| Size               | 50 µL                            |
| Species Reactivity | Human, Mouse, Rat                |
| Published Species  | Mouse                            |
| Host/Isotype       | Mouse / IgG1                     |
| Class              | Monoclonal                       |
| Type               | Antibody                         |
| Clone              | 2MOD-1G6                         |
| Conjugate          | Unconjugated                     |
| Immunogen          | Recombinant HP1-gamma mouse      |
| Form               | Liquid                           |
| Concentration      | Conc. Not Determined             |
| Storage buffer     | ascites                          |
| Contains           | 0.05% sodium azide               |
| Storage conditions | -20° C, Avoid Freeze/Thaw Cycles |
| RRID               | AB_2607959                       |

| Applications                 | Tested Dilution | Publications  |
|------------------------------|-----------------|---------------|
| Western Blot (WB)            | 1:2,000         | 1 Publication |
| Immunocytochemistry (ICC/IF) | 1:250           | 1 Publication |
| ELISA (ELISA)                | 1:500           | -             |
| ChIP assay (ChIP)            | 1:100           | -             |

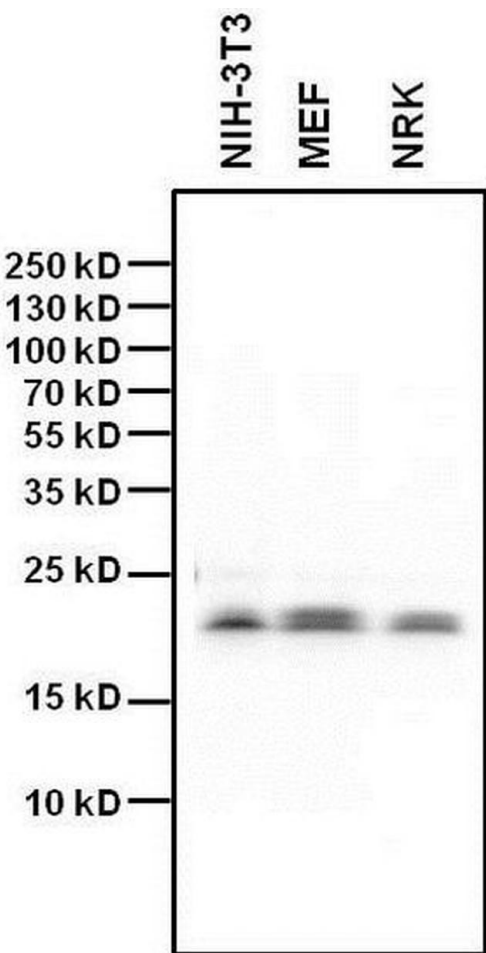
## Product Specific Information

MA3-054 detects HP1-gamma in human, mouse and rat samples.

MA3-054 has been succesfully used in western blot, ELISA, immunofluorescence and ChIP applications.

Immunogen is a HP1-gamma recombinant mouse

## Product Images For HP1 gamma Monoclonal Antibody (2MOD-1G6)

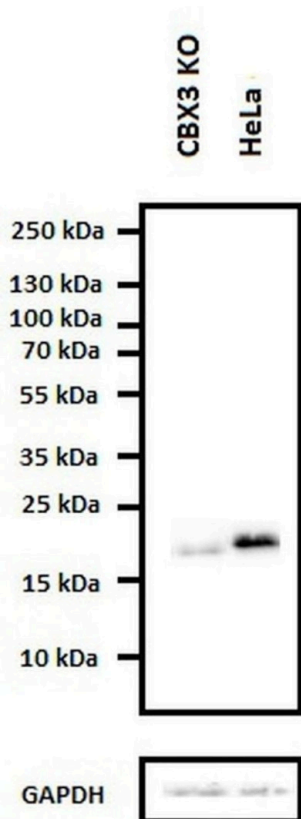


#### HP1 gamma Antibody (MA3-054) in WB

Western blot analysis of HP1-gamma was performed by loading 20 µg of NIH 3T3 (lane 1), MEF (lane 2), and NRK (lane 3) cell lysates in reducing sample buffer (Product # 39000) and Page Ruler Plus Protein Ladder (Product # 26619) onto a Novex 4-20% Tris-Glycine polyacrylamide gel (Product # WT4201BX10). Proteins were transferred to nitrocellulose membrane (Product # 88018) with Transfer Buffer (Product # 84731) using the G2 Fast Blotter (Product # 62288). Membrane was blocked in StartingBlock T20 (Product # 37543) for one hour at room temperature. HP1-gamma was detected at approximately 22 kDa using a HP1-gamma monoclonal antibody (Product # MA3-054) at a dilution of 1:2000 in StartingBlock T20 overnight at 4°C on a rocking platform, followed by a goat anti-mouse IgG-HRP secondary antibody (Product # 31430) at a dilution of 1:10,000 for one hour. Chemiluminescent detection was performed using SuperSignal West Dura (Product # 34076) and the myECL Imager (Product # 62236).

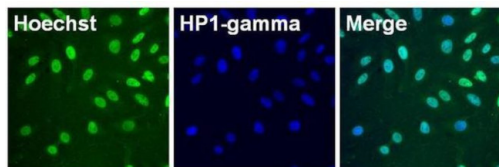
#### HP1 gamma Antibody (MA3-054)

The specificity of anti-CBX3/HP1 gamma mouse monoclonal antibody (Product # MA3-054) was demonstrated by CRISPR targeted CBX3/HP1 gamma knockout in HeLa cells. Western blot analysis of whole cell lysates using this antibody showed no detection of CBX3/HP1 gamma protein expression in knockout cells (lane 1) compared to the CBX3/HP1 gamma protein detected at ~20kDa in wildtype HeLa cells (lane 2). {KO}



### HP1 gamma Antibody (MA3-054) in ICC/IF

Immunofluorescent analysis of HP1-gamma (green) in HeLa cells. The cells were fixed with formalin for 15 minutes, permeabilized with 1X Permeabilization buffer (Product # 8408400) for 15 minutes, and blocked with 1% Blocker BSA (Product # 37525) for 15 minutes at room temperature. Cells were stained with HP1-gamma monoclonal antibody (Product # MA3-054) at a dilution of 1:250 in blocking buffer for one hour at room temperature, washed with 1X TBS Tween 20 Buffer (Product # 28360), followed by incubation with DyLight 488 goat anti-mouse IgG secondary antibody (green, Product # A28175) at a dilution of 1:2000 and Hoechst 33342 dye (blue, Product # 62249) at a dilution of 1:5000 for 30 minutes at room temperature. Images were taken on a Thermo Scientific ToxInsight at 20X magnification.



[View more figures on thermofisher.cn](#)

## 2 References

### Western Blot (1)

EMBO reports

#### HP1 maintains protein stability of H3K9 methyltransferases and demethylases.

"MA3-054 was used in Western Blotting to indicate that mammalian HP1 forms a heterochromatin hub that governs protein stability of H3K9 MTs and H3K9 DMs."

Authors: Maeda R, Tachibana M

Year  
2022

Species  
Mouse

### Immunocytochemistry (1)

Nucleic acids research

#### TET1 regulates gene expression and repression of endogenous retroviruses independent of DNA demethylation.

"MA3-054 was used in Immunocytochemistry-immunofluorescence to demonstrate that the non-catalytic functions of TET1 are critical for regulation of gene expression and the silencing of endogenous retroviruses in mESCs."

Authors: Stolz P, Mantero AS, Tvardovskiy A, Ugur E, Wange LE, Mulholland CB, Cheng Y, Wierer M, Enard W, Schneider R, Bartke T, Leonhardt H, Elsässer SJ, Bultmann S

Year  
2022

Species  
Mouse

Dilution  
1:100

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