

**Rabbit Anti-Histone H3 K27M Mutant/H3K27M [RM192]: RM0106**

**Intended Use:** For Research Use Only

**Description:** Histone H3 is one of the five main histone proteins involved in the structure of chromatin in eukaryotic cells. Featuring a main globular domain and a long N-terminal tail, H3 is involved with the structure of the nucleosomes of the 'beads on a string' structure. The N-terminal tail of histone H3 protrudes from the globular nucleosome core and can undergo several different types of epigenetic modifications that influence cellular processes. These modifications include the covalent attachment of methyl or acetyl groups to lysine and arginine amino acids and the phosphorylation of serine or threonine. Histone variant H3 is typically enriched in active chromatin.

**Specifications:**

Clone: RM192  
Source: Rabbit  
Isotype: IgG  
Reactivity: All  
Immunogen: A peptide corresponding to Histone H3 K27M mutant  
Localization: Nucleus  
Formulation: Protein A affinity Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
Storage: Store at 2°- 8°C  
Applications: IHC, ELISA, ICC/IF, WB  
Package:

Description	Catalog No.	Size
Histone H3 K27M Mutant/H3K27M Concentrated	RM0106	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Brain with Histone H3 K27M mutant, 293T cells transfected with a DNA construct encoding Histone H3 K27M mutant  
Concentrated Dilution: 100-1000  
Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
Incubation Time and Temp: 30-60 minutes @ RT  
Detection: Refer to the detection system manual  
\* Result should be confirmed by an established diagnostic procedure.



FFPE human brain tumor stained with anti-Histone H3 K27M using DAB

**References:**

1. BRAF Fusion Analysis in Pilocytic Astrocytomas: KIAA1549-BRAF 15-9 Fusions Are More Frequent in the Midline Than Within the Cerebellum. Faulkner, et al. Journal of neuropathology and experimental neurology 74: 867-72, 2015.
2. Specific detection of methionine 27 mutation in histone 3 variants (H3K27M) in fixed tissue from high-grade astrocytomas. Bechet, D; et al. Acta neuropathologica 128:733-41, 2014.
3. A sensitive and specific histopathologic prognostic marker for H3F3A K27M mutant pediatric glioblastomas. Venneti, S; et al. Acta neuropathologica 128: 743-53, 2014.
4. Inhibition of PRC2 activity by a gain-of-function H3 mutation found in pediatric glioblastoma. Lewis, Peter W, et al. Science, 340: 857-61, 2013.