

PRODUCT DATA SHEET

Product: Anti-DNA Polymerase ϵ mAb, clone 93H3A

Cat. No.: MC-371 (100 μ g)

Background:

DNA polymerase ϵ (pol ϵ) is present in proliferating cells and is implicated in repair of UV-damaged DNA. It is found to be a component of a recombination complex that is able to repair deletions and double-stranded breaks. It is not known whether pol ϵ^* can replace pol ϵ in these processes. While the molecular weight of pol ϵ is ~200 kDa, there is a second form known as pol ϵ^* which is 140 kDa in size. Clone 93H3A (MC-371) is directed against aa 1-176 and recognizes both pol ϵ and pol ϵ^* . A second clone 93G1A (MC-372) directed against aa 242-474. However a third clone 93E24C (MC-373) directed against aa 2095-2257 does not recognize pol ϵ^* suggesting that the pol ϵ^* is a truncated form of pol ϵ that has lost its C-terminal half.

Specificity:

This antibody recognizes both pol ϵ and pol ϵ^* . Does not cross-react with DNA polymerase α or δ and does not neutralize the polymerase or exonuclease activity of the enzyme.

Species Reactivity:

Human, monkey, bovine and mouse. Others not tested.

A mixture of clones 93H3A and 93G1A (MC-372) detects *D. melanogaster* (pol ϵ only), *T. ni* insect cells (pol ϵ only), *S. cerevisiae* (both pol ϵ and pol ϵ^*), *X. laevis* (pol ϵ^* only) and chicken (pol ϵ^* only).

Ig Isotype:

Mouse IgG_{1/k}

Immunogen:

Purified recombinant polypeptide corresponding to aa 1-176 of human DNA polymerase ϵ .

Epitope:

aa 1-176

Format:

500 μ L of 200 μ g/mL monoclonal antibody in 10 mM PBS, pH 7.4, with protein stabilizer and 0.09%

sodium azide. Purified from ascites fluid by Protein G affinity chromatography.

Cellular Localization:

Nuclear

Positive Control:

293 cells

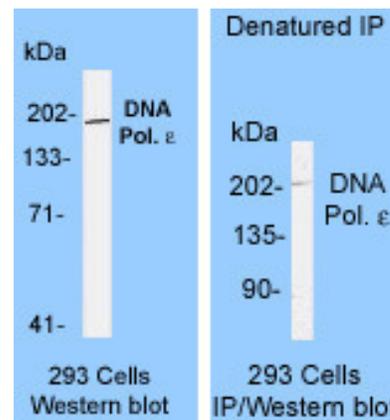
Storage:

Store at 4 °C.

Applications and Suggested Dilutions:

- Immunoprecipitation: (Native and denatured) Use Protein G; antibody at 2 μ g/mg of protein lysate.
- Western blot: Use at 2-4 μ g/mL for 2 hours at room temperature.

The optimal dilution for a specific application should be determined by the researcher.



Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.