

## Polyclonal Antibody to Ki-67 - Purified

Alternate names: Ki67 antigen, MKI67, Proliferation marker

Catalog No.: DP026
Quantity: 1 ml

Background: Ki-67 antigen is expressed in proliferating cells but not in quiescent cells. Expression of

this antigen occurs preferentially during late G1, S, G2, and M phases of the cell cycle, while in cells in G0 phase the antigen cannot be detected. Consequently, Ki-67 antigen expression is used in tumor pathology to detect proliferating cells in neoplastic diseases. In cultured cells, Ki-67 is expressed in the nucleolus of interphase cells. The Ki-67 gene contains 15 exons. The Ki-67 repeat region, within which there is a 22-amino acid Ki-67 motif, is encoded by exon 13. The shorter isoform lacks exon 7. Northern blot analysis re-vealed multiple transcripts ranging from approximately 8.9 to 12.5 kb in proliferating but not quies-cent cells. Immunoblot analysis showed expression of 320- and 359-kD proteins. Sequence analy-sis predicted that the short-lived 2,896- and 3,256-amino acid protein isoforms contain potential nuclear targeting signals, over 200 potential phosphorylation sites, 19 N-myristoylation sites, 3 amidation sites, and numerous PEST sites. Antisense oligonucleotides inhibited cellular prolifera-tion in a dose-dependent manner, suggesting that Ki-67 protein expression may be an absolute requirement for cell proliferation.

Uniprot ID: P46013

NCBI: NP 001139438.1

GenelD: 4288
Host: Rabbit

Immunogen: Synthetic peptide from 62 base pair region of the human Ki-67 antigen.

Format: State: Liquid purified Ig fraction containing Sodium azide as preservative.

Applications: Immunohistochemsistry on Frozen and Formalin-Fixed Paraffin Embedded Sections: Use a

dilution of 1/25-1/50 in an ABC method (30 minutes at room temperature).

Formalin fixed paraffin embedded tissue sections require high temperature antigen

unmasking with 10 mM citrate buffer, pH 6.0 prior to immunostaining.

Recommended Positive Control: Tonsil.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

**Specificity:** This antibody reacts with a nuclear antigen present in proliferating human cells.

It can be used to evaluate the ki-67 labeling index in various tumors.

Cellular Localization: Nuclear.

Species: Human.

Other species not tested.



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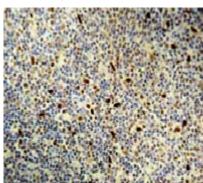
Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing. Shelf life: one year from despatch.

- General References: 1. Gerdes et al. Am J Pathol 138: 867, 1991.
  - 2. Wintzer et al. Cancer 67: 421, 1991.
  - 3. Brown et al. Histopathology 17: 489, 1990
  - 4. Gerdes J. Seminars in Cancer Biol 1: 199, 1990.

**Pictures:** 



Formalin fixed paraffin embedded human tonsil stained with Ki-67 antibody. DP026