

**DP026-05****Polyclonal Antibody to Ki-67 - Purified****Alternate names:**

Ki67 antigen, MKI67, Proliferation marker

**Quantity:**

0.5 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](#)**GeneID:**[4288](#)**Host:**

Rabbit

**Immunogen:**

Synthetic peptide from 62 base pair region of the Human Ki-67 antigen.

**Format:****State:** Liquid purified Ig fraction**Preservatives:** < 0.1% Sodium Azide**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.

**Storage:** Store 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 Readings:**

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

