

Ki67

Cat.No. 398 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: not tested yet IP: not tested yet ICC: not tested yet IHC: not tested yet IHC-P/FFPE: 1 : 1000 up to 1 : 4000
Immunogen	Synthetic peptide corresponding to AA 1251 to 1271 from human Ki67 (UniProt Id: P46013)
Reactivity	Reacts with: human (P46013). No signal: mouse (E9PVX6), pig. Other species not tested yet.
Specificity	Specific for Ki 67.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Expression of the nuclear protein **Ki 67** is strictly associated with cell proliferation and preferentially expressed during the late G1, S, G2 and M phases of the cell cycle. Resting cells (G0 phase) lack Ki 67 expression.

Immunohistochemical detection of Ki 67 is a simple and reproducible method to determine the tumour proliferative index and is a predictive and prognostic biomarker in certain types of human cancer, such as breast cancer, gastric cancer or prostate cancer. Moreover, higher Ki 67 scores may be associated with increased tumor sensitivity to radiation therapy and chemotherapy.

In preclinical and clinical studies Ki 67 expression is used as a pharmacodynamic biomarker. Absence of a decrease in Ki 67 early in treatment might be predictive of therapeutic failure.

Selected General References

Clinical predictors of pathological complete response to neoadjuvant chemotherapy in triple-negative breast cancer. Nakashoji A, Matsui A, Nagayama A, Iwata Y, Sasahara M, Murata Y. *Oncology letters* (2017) 14(4): 4135-4141.

Prognostic role of Ki-67 score in localized prostate cancer: A systematic review and meta-analysis. Berlin A, Castro-Mesta JF, Rodriguez-Romo L, Hernandez-Barajas D, González-Guerrero JF, Rodríguez-Fernández IA, González-Conchas G, Verdines-Perez A, Vera-Badillo FE. *Urologic oncology* (2017) 35(8): 499-506.

Immunohistochemical analysis of PTEN, HER2/neu, and ki67 expression in patients with gastric cancer and their association with survival.

Badary DM, Abdel-Wanis ME, Hafez MZ, Aboulhagag NA

Pathophysiology : the official journal of the International Society for Pathophysiology (2017) 24(2): 99-106.

Correlation between the Ki-67 proliferation index and response to radiation therapy in small cell lung cancer.

Ishibashi N, Maebayashi T, Aizawa T, Sakaguchi M, Nishimaki H, Masuda S

Radiation oncology (London, England) (2017) 12(1): 16.

Comparative study of two complementary proliferation markers in 200 breast carcinomas: Ki67 and mitotic index.

El Amine O, Ouni R, Adouni O, Goucha A, Ben Hassouna J, Rahal K, El May A, Gamoudi A

La Tunisie medicale (2016) 94(10): 587-593.

Ki-67 is a prognostic parameter in breast cancer patients: results of a large population-based cohort of a cancer registry.

Inwald EC, Klinkhammer-Schalke M, Hofstädter F, Zeman F, Koller M, Gerstenhauer M, Ortmann O

Breast cancer research and treatment (2013) 139(2): 539-52.

Assessment of Ki67 in breast cancer: recommendations from the International Ki67 in Breast Cancer working group.

Dowsett M, Nielsen TO, A'Hern R, Bartlett J, Coombes RC, Cuzick J, Ellis M, Henry NL, Hugh JC, Lively T, McShane L, et al. *Journal of the National Cancer Institute* (2011) 103(22): 1656-64.

Clinical significance of Ki-67 in neoadjuvant chemotherapy for primary breast cancer as a predictor for chemosensitivity and for prognosis.

Nishimura R, Osako T, Okumura Y, Hayashi M, Arima N

Breast cancer (Tokyo, Japan) (2010) 17(4): 269-75.

The Ki-67 protein: from the known and the unknown.

Scholz T, Gerdes J

Journal of cellular physiology (2000) 182(3): 311-22.

The prognostic value of Ki67 immunostaining in non-Hodgkin's lymphoma.

Hall PA, Richards MA, Gregory WM, d'Ardenne AJ, Lister TA, Stansfeld AG

The Journal of pathology (1988) 154(3): 223-35.