Scientific Publication List

February 2017

TK 210 ELISA

Thymidine kinase 1 (TK1)

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The body of scientific research for Thymidine Kinase 1 (TK1) currently includes over 50 peer-reviewed studies, and continues to grow as the research expands.

By clicking on each individual study title, you will be linked to the corresponding abstract in PubMed.

1. Jagarlamudi KK, Holmgren S, Venge P, Eriksson S.

   Evaluation of an improved version of the AroCell TK 210 ELISA for determining thymidine kinase 1 protein level in serum samples.

   Tumor Biol. (2016) 37(Suppl 1): 1. doi:10.1007/s13277-016-5287-4.

2. Kiran Kumar J, Aronsson AA, Pilko G, Zupan M, Kumer K, Fabjan T, Osredkar J, Eriksson S.

   A Clinical evaluation of the TK 210 ELISA in sera from breast cancer patients demonstrates high sensitivity and specificity in all stages of disease.

   Tumor Biol. Published online 14 April 2016

3. Eriksson S, Kiran Kumar J, Nilsson O, Venge P, Aronsson AC.

   The TK 210 ELISA is a robust method to determine thymidine kinase 1 protein levels in serum samples.

   Tumor Biol. 2015 36 (Suppl 1) S57, 2015.

4. Jagarlamudi KK, Tribukait B , Zupan M, K. Kumer K, Fabjan T, Osredkar J, Smrkoli T, Eriksson S.

   The TK 210 ELISA can measure increased TK1 protein levels in sera from prostate cancer patients with different Gleason scores.

   Tumor Biol. 2015 36 (Suppl 1) S34-S35, 2015.

5. Jagarlamudi KK, Hansson LO, Eriksson S.

   Breast and prostate cancer patients differ significantly in their serum Thymidine kinase 1 (TK1) specific activities compared with those hematological malignancies and blood donors: implications of using serum TK1 as a biomarker.

   BMC Cancer 2015 Feb 18;15:66. doi: 10.1186/s12885-015-1073-8.

6. Zhou J, He E, Skog S.

   The proliferation marker thymidine kinase 1 in clinical use.

   Mol Clin Oncol 2013 Jan;1(1):18-28. Epub 2012 Sep 4.

7. Hanan S, Jagarlamudi KK, Liya W, Ellen H, Staffan E.

   Quaternary structures of recombinant, cellular, and serum forms of thymidine kinase 1 from dogs and humans.

   BMC Biochem 2012 Jun 28;13:12. doi: 10.1186/1471-2091-13-12.

8. Chen YL, Eriksson S, Chang ZF.

   The regulation and functional contribution of thymidine kinase 1 in repair of DNA damage.

   J Biol Chem. 2010 Aug 27;285(35):27327-35. doi: 10.1074/jbc. M110.137042. Epub 2010 Jun 16.

9. He E, X XH, Guan H, Chen Y, Chen ZH, Pan ZL, Tang LL Hu GZ, Li Y, Zhang M, Zhou J, Eriksson S, Fornander T, Skog S.

   Thymidine kinase 1 is a potential marker for prognosis and monitoring the response to treatment of patients with breast, lung, and esophageal cancer and non-Hodgkin's lymphoma.

   Nucleosides Nucleotides Nucleic Acids. 2010, 29 (4-6): p. 352-8.

10. Li Z, Wang Y, Ma J, He S, Zhou J, He E, Skog S.

    Transient increase in serum thymidine kinase 1 within one week after surgery of patients with carcinoma.

    Anticancer Res. 2010, 30(4): p. 1295-9.

11. Li Z, Wang Y, He J, Ma J, Zhao L, Chen H, Li N Zhou J, He H, Skog S.

Serological thymidine kinase 1 is a prognostic factor in oesophageal, cardial and lung carcinomas.

Eur J Cancer Prev. 2010, 19(4): p. 313-8.

12. Shintani M, Takakuwa Y, Kuroda M, Kanoshida S.

Immunohistochemical characterization of pyrimidine synthetic enzymes, thymidine kinase-1 and thymidylate synthase, in various types of cancer.

Oncol Rep. 2010, 23 (5): p. 1345-50.

13. Chen Y, Ying M, Chen Y, Hu M, Lin Y, Chen D, Li X, Zhang M, Yun X, Zhou J, He E, Skog S.

Serum thymidine kinase 1 correlates to clinical stages and clinical reactions and monitors the outcome of therapy of 1,247 cancer patients in routine clinical settings.

Int J Clin Oncol. 2010 Aug;15(4):359-68. doi: 10.1007/s10147-010-0067-4. Epub 2010 Apr 1.

14. Pan ZL, Ji XY, Shi YM, Zhou J, He E, Skog S.

Serum thymidine kinase 1 concentration as a prognostic factor of chemotherapy-treated non-Hodgkin's lymphoma patients.

J Cancer Res Clin Oncol. 2010 Aug; 136(8):1193-9. doi: 10.1007/s00432-010-0769-z. Epub 2010 Feb 7.

15. Luo P, Wang N, He E, Eriksson S, Zhou J, Hu G, Zhong J. Skog S.

The proliferation marker thymidine kinase 1 level is high in normal kidney tubule cells compared to other normal and malignant renal cells.

Pathol Oncol Res. 2010 Jun;16(2):277-83. doi: 10.1007/s12253-009-9222-5. Epub 2009 Dec 3.

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Molecular PET and PET/CT imaging of tumour cell proliferation using F-18 fluoro-L-thymidine: a comprehensive evaluation.

Nucl Med Commun. 2009 Dec;30(12):908-17. doi: 10.1097/MNM.0b013e32832ee93b20.

17. Gasparri F,Wang N, Skog S, Galvani A, Eriksson S.

Thymidine kinase 1 expression defines an activated G1 state of the cell cycle as revealed with site-specific antibodies and ArrayScan assays.

Eur J Cell Biol. 2009, 88: p. 779-85.

18. Brockenbrough JS, Morihara JK, Howes SE, Stern JE, Rasey JS, Wiens LW, Feng Q, Vesselle H.

Thymidine kinase 1 and thymidine phosphorylase expression in non-small-cell lung carcinoma in relation to angiogenesis and proliferation.

J Histochem Cytochem. 2009 Nov;57(11):1087-97. doi: 10.1369/jhc.2009.952804. Epub 2009 Aug 3.

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Serum thymidine kinase 1 concentration in Chinese patients with chronic lymphocytic leukemia and its correlation with other prognostic factors.

Int J Hematol. 2009 Sep;90(2):205-11. doi: 10.1007/s12185-009-0380-8. Epub 2009 Jul 2413.

20. Carlsson L, Larsson A, Lindman H.

Elevated levels of thymidine kinase 1 peptide in serum from patients with breast cancer.

Ups J Med Sci. 2009;114(2):116-20. doi: 10.1080/03009730802688835.

21. Luo P, He E, Eriksson S, Zhou J, Hu G, Zhang J, Skog S.

Thymidine kinase activity in serum of renal cell carcinoma patients is a useful prognostic marker.

Eur J Cancer Prev. 2009 Jun;18(3):220-4. doi: 10.1097/CEJ.0b013e328329d817.

22. Chen Z, Zhou H, Li S, He E, Hu J, Zhou J, Skog S.

Serological thymidine kinase 1 (STK1) indicates an elevated risk for the development of malignant tumours.

Anticancer Res. 2008 Nov-Dec;28(6B):3897-907.

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Monitoring therapy in canine malignant lymphoma and leukemia with serum thymidine kinase 1 activity–evaluation of a new, fully automated non-radiometric assay.

Int J Oncol. 2009 Feb;34(2):505-10.

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Thymidine kinase 1 as a molecular target for boron neutron capture therapy of brain tumors.

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32. He Q, Fornander T, Johansson H, Johansson U, Hu GZ, Rutqvist LE Skog S.

Thymidine kinase 1 in serum predicts increased risk of distant or loco-regional recurrence following surgery in patients with early breast cancer.

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