

Data Sheet

HUMAN THYMOSIN β4 (aa 1-14)

ANTIBODY, POLYCLONAL

Catalog no.: A 9520.1 / A 9520.2

Immunogen: Synthetic human Thymosin β4 (aa 1-14) KLH conjugated

(AcSDKPDMAEIEKFDK)

Synonyms: T beta-4, Fx

Swiss-Prot No: P62328

Gene Information: Gene name: TMSB4X, TB4X,

THYB4, TMSB4

GenelD: 7114

Host: Rabbit **Matrix:** Serum

Specificity: Human Thymosin β4 (aa 1-14),

human and mouse Thymosin β4.

There was no cross reactivity obtained with human Thymosin α1 and human Thymulin, Tb4 (aa 1-4), Tb9, Tb9 (aa 1-14), AcADKP, ADKP, AcGDKP, AcTDKP, AcSPKD,

AcVDKP, BSA.

Contents: 20 μl / 100 μl (lyophilized)

Resuspend in 20 µl / 100 µl aqua bidest.

Known applications: ELISA (1:4000)^{1,2}, Western Blot (1:5000)⁸, dot blot (1:500),

immunohistochemistry (paraffin sections, 1:200; cryosections, 1:100;

vibratome sections, 1:8000; whole-mount, 1:100)^{3, 4, 5, 6, 7, 8}

This antibody has not been tested for use in all applications. This does not necessarily exclude its use for non-tested procedures. The stated dilutions are recommendations only. We suggest that the applicant titrates the antibody in his/her system using appropriate negative/positive controls.

Store at: 2-8 °C (lyophilized); - 20 °C (dissolved)

Repeated thawing and freezing must be avoided

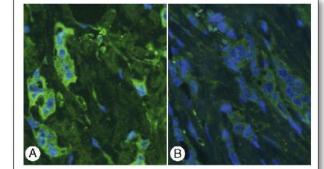


Figure 1: Immunohistochemistry image of Thymosin β4 staining in paraffin sections of breast cancer tissue. Sections were incubated with A 9520 (1:200) for 2h followed by incubation with Alexa-488 goat-anti-rabbit antibody (1:400) (Molecular Probes). The sections were stained for DNA using bisbenzimide. A. A 9520 stains scattered tumor cells strongly. B. Antiserum preabsorbed with the antigen does not stain the tumor tissue.

Larsson LI et al. (2007) Hum Pathol 38(1):114-9



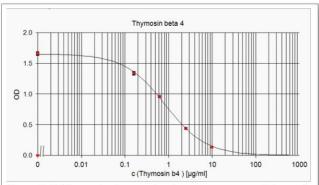


Figure 2: ELISA standard curve showing measurement of Thymosin beta4 in a competitive immunoassay using A 9520. OD was determined at 450 nm. The shown standard curve is for demonstration purposes only and can be influenced by buffer, incubation conditions or dilution of the conjugate.

References:

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- 3. Mihelic M, Livaniou E, Hörger S, Galic M, Giebel W, Lenfant M, Voelter W. Antibodies against Thymosin beta4 Their Specificity and use in Immunohistochemical Studies. Recent Advances in Cellular and Molecular Biology Abstract Book from the 1.World Congress of C.M.B, Paris, September 1-7, 1991 1, 43-49. 1992.
- 4. Larsson Ll, Holck S (2007). Localization of thymosin beta-4 in tumors. *Ann N Y Acad Sci* **1112:** 317-325.
- 5. Paulussen M, Landuyt B, Schoofs L, Luyten W, Arckens L (2009). Thymosin beta 4 mRNA and peptide expression in phagocytic cells of different mouse tissues. *Peptides* **30**(10): 1822-1832
- 6. Smart N, Dube KN, Riley PR (2010). Identification of Thymosin beta4 as an effector of Hand1-mediated vascular development. *Nat Commun* **1**(4): 1-10.
- 7. Gruner BM, Hahne H, Mazur PK, Trajkovic-Arsic M, Maier S, Esposito I, Kalideris E, Michalski CW, Kleeff J, Rauser S, Schmid RM, Kuster B, Walch A, Siveke JT (2012). MALDI imaging mass spectrometry for in situ proteomic analysis of preneoplastic lesions in pancreatic cancer. *PLoS One* **7**(6): e39424.
- 8. Kim J, Hyun J, Wang S, Lee C, Lee J-W, Moon E-Y, Cha H, Diehl AM & Jung Y (2017). Thymosin beta-4 regulates activation of hepatic stellate cells via hedgehog signaling. *Sci. Rep.* **7:** 3815.

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For research use only

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