

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books
Search PubMed for thymosin alpha 1 Zhang Nemoto [Advanced Search](#)
[Save Search](#)

Limits Preview/Index History Clipboard Details

Display AbstractPlus Show 20 Sort By Send to

All: 1 Review: 0

 1: [Int Immunopharmacol.](#) 2002 Jan;2(1):39-46.[ELSEVIER](#) [Links](#)
FULL-TEXT ARTICLE**Thymosin alpha1 accelerates restoration of T cell-mediated neutralizing antibody response in immunocompromised hosts.**[Li CL](#), [Zhang T](#), [Saibara T](#), [Nemoto Y](#), [Ono M](#), [Akisawa N](#), [Iwasaki S](#), [Maeda T](#), [Onishi S](#).

Department of Medicine, Kochi Medical School, Nankoku, Japan.

Thymosin alpha1 is a biological response modifier that has been used clinically for the treatment of chronic hepatitis B viral infection. Both immunomodulatory and immediate intracellular mechanisms have been postulated to explain the effect of thymosin alpha1 on hepatocytes infected with hepatitis B virus (HBV). Here, we established a new animal model and the related suitable conditions to access the thymosin activity by means of measuring the production of neutralizing antibody against hepatitis B surface antigen (HBsAg). We proved that chemically synthesized thymosin alpha1 restored the T cell-mediated antibody production following its suppression in mice by 5-fluorouracil (5-FU), and found that thymosin alpha1 showed activity at a low dose of 30 microg/kg. Further studies utilizing the flowcytometric analysis showed that thymosin alpha1 at this dose accelerated the replenishment and maturation of thymocytes while the expression of Smoothened (Smo) of the Hedgehog (Hh)-signaling in CD4-CD8- thymocytes, the potent negative regulator of proliferative responses, was not affected. The restoration of some of the defects in the host defense systems may facilitate elimination of infectious agents, and the present study provides a novel model to define the restoration of T cell-mediated immune responses to hepatitis B virus in vivo.

PMID: 11789668 [PubMed - indexed for MEDLINE]

Related articles

Thymosin-alpha1 and famciclovir combination therapy activates T-cell response in patients [J Viral Hepat. 2002]

Efficacy of thymosin alpha-1 and interferon alpha in treatment of chronic viral h [World J Gastroenterol. 2006]

Review Use of immunomodulatory therapy (other than interferon) for the treatm [J Gastroenterol Hepatol. 2000]

Restoration of immunocyte functions by thymosin alpha1 in cyclc [Immunopharmacol Immunotoxicol. 2001]

Review Thymosin alpha1. SciClone Pharmaceuticals. [Curr Opin Investig Drugs. 2002]

» See reviews... | » See all...

Cited by 1 PubMed Central article

Thymosin-alpha1 modulates dendritic cell differentiation and functional maturation from hum [Immunol Lett. 2007]

Patient Drug Information**Cyclophosphamide (Cytoxan®, Neosar®)** Your doctor has ordered the drug cyclophosphamide to help treat your illness. The drug can be taken by mouth in tablet**Fluorouracil (Adrucil®)** Your doctor has ordered the drug fluorouracil to help treat your illness. The drug is given by injection into a vein.

Source: AHFS Consumer Medication Information

Recent Activity[Turn Off](#) [Clear](#)

Thymosin alpha1 accelerates restoration of T cell-mediated neutralizing antibody response ...

[thymosin alpha 1 Zhang Ne... \(1\)](#)[thymosin alpha 1 Zhang \(21\)](#)[th \(4756885\)](#)

PubMed

Prothymosin alpha interacts with the CREB-binding protein and potentiates

» See more...

Display AbstractPlus Show 20 Sort By Send to

[Write to the Help Desk](#)[NCBI](#) | [NLM](#) | [NIH](#)[Department of Health & Human Services](#)[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)