

Datasheet for ABIN7557864  
**TOX Protein (AA 1-526) (His tag)**



[Go to Product page](#)

## Overview

Quantity:	1 mg
Target:	TOX
Protein Characteristics:	AA 1-526
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TOX protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Purpose:	Custom-made recombinat Tox Protein expressed in mammalien cells.
Sequence:	<p>MDVRFYPPPA QPAAAPAAPC LGPSPCLDPY YCNKFDGENM YMSMTEPSQD YVPASQSYPG PSLESEDFNI PPITPPSLPD HSLVHLNEVE SGYHSLCHPM NHNGLLPFHP QTMDLPEITV SNMLGQDGAL LSNSISVMQE IGNAEGAQYS SHPQMAAMRP RGQPTDIRQQ ASMMQPGQLT TINQSQLSAQ LGLNMGGTNV AHNSPSPPGS KSATPSPSSS VHEDECEDAS KINGGEKRPA SDMGKKPKTP KKKKKKDPNE PQKPVSAAYL FFRDTQAAIK GQNP NATFGE VSKIVASMWD GLGEEQKQVY KKKTEAAKKE YLKQLAAYRA SLVSKSYTDP VDVKTSQPPQ LVNSKPSVFH GPSQAHSALY LSSH YHQPG MTPQLTAMHP SLPRNIAPKP NNQMPVTVSI ANMAVSPPPP LQISPPLHQH LSMQQHQSLA MQQPLGSQLP MQVQTALHSP TMQQGFTLQP DYQTIINPTS TAAQVVTQAM EYVRSGCRNP PPQPVDWSTD YCSSGGMQRD KALYLT <b>Sequence without tag.</b></p> <p><b>The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a</b></p>

## Product Details

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### special request, please contact us.

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#### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

#### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

#### Grade:

custom-made

## Target Details

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#### Target:

TOX

#### Alternative Name:

Tox ([TOX Products](#))

#### Background:

Thymocyte selection-associated high mobility group box protein TOX (Thymus high mobility group box protein TOX),FUNCTION: Transcriptional regulator with a major role in neural stem cell commitment and corticogenesis as well as in lymphoid cell development and lymphoid tissue organogenesis (PubMed:25527292, PubMed:20818394, PubMed:11850626, PubMed:18195075, PubMed:15078895, PubMed:25915732). Binds to GC-rich DNA sequences in the proximity of transcription start sites and may alter chromatin structure, modifying access of transcription factors to DNA (PubMed:25527292, PubMed:31207603, PubMed:31207604). During cortical development, controls the neural stem cell pool by inhibiting the switch from proliferative to differentiating progenitors. Beyond progenitor cells, promotes neurite outgrowth in newborn neurons migrating to reach the cortical plate. May activate or repress critical genes for neural stem cell fate such as SOX2, EOMES and ROBO2 (PubMed:25527292). Plays an essential role in the development of lymphoid tissue-inducer (LTi) cells, a subset necessary for

## Target Details

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the formation of secondary lymphoid organs: peripheral lymph nodes and Peyer's patches (PubMed:20818394). Acts as a developmental checkpoint and regulates thymocyte positive selection toward T cell lineage commitment (PubMed:11850626, PubMed:18195075). Required for the development of various T cell subsets, including CD4-positive helper T cells, CD8-positive cytotoxic T cells, regulatory T cells and CD1D-dependent natural killer T (NKT) cells (PubMed:18195075, PubMed:15078895). Required for the differentiation of common lymphoid progenitors (CMP) to innate lymphoid cells (ILC). May regulate the NOTCH-mediated gene program, promoting differentiation of the ILC lineage (PubMed:25915732). Required at the progenitor phase of NK cell development in the bone marrow to specify NK cell lineage commitment (PubMed:20818394). Upon chronic antigen stimulation, diverts T cell development by promoting the generation of exhaustive T cells, while suppressing effector and memory T cell programming. May regulate the expression of genes encoding inhibitory receptors such as PDCD1 and induce the exhaustion program, to prevent the overstimulation of T cells and activation-induced cell death (PubMed:31207603, PubMed:31207604).  
{ECO:0000269|PubMed:11850626, ECO:0000269|PubMed:15078895, ECO:0000269|PubMed:18195075, ECO:0000269|PubMed:20818394, ECO:0000269|PubMed:25527292, ECO:0000269|PubMed:25915732, ECO:0000269|PubMed:31207603, ECO:0000269|PubMed:31207604}.

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Molecular Weight: 57.2 kDa

UniProt: [Q66JW3](#)

## Application Details

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Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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## Handling

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months