

Recombinant Human Transforming Growth Factor-β1 (TGF-β1)








Publication Part Number MAN0004528







Rev. 1.00

Catalog Number:	PHG9214	PHG9211
Quantity:	10 µg	100 µg
Lot Number:	See product label.	
Molecular Weight:	25.0 kDa, composed of 2 identical 112 amino acid subunits.	
Purity:	≥95% as determined by SDS-PAGE analysis.	
Biological Activity:	ED ₅₀ ≤0.2 ng/mL. The biological activity was determined by measuring the TGF-β1 dose-dependent inhibition of proliferation of mouse HT-2 cells stimulated with mouse IL-4. The optimal concentration should be determined for each specific application. TGF-β1 is a member of a family of homologous proteins which regulate cell proliferation and differentiation.	
Formulation:	Lyophilized from 100mM acetic acid.	
Sterility:	Filtered prior to lyophilization through a 0.22 micron sterile filter.	
Endotoxin:	<0.1 ng/µg	
Production:	Recombinant human TGF-β1 is produced in HEK 293 cells and purified via sequential chromatography.	
Reconstitution Recommendation:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This lyophilized protein should be reconstituted in an acidic buffer such as 40mM acetic acid or 4 mM HCl to a concentration of 0.1–1.0 mg/mL. <i>Do not vortex.</i> This solution can be stored at 2°C to 8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein, such as 0.1% BSA and store in working aliquots at –20°C to –80°C.	
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.	
Storage:	Lyophilized human TGF-β1 should be stored at 2°C to 8°C, preferably desiccated. Store reconstituted human TGF-β1 at ≤ –20°C (not in a frost-free freezer). Keep freeze/thaw cycles to a minimum.	
Expiration Date:	Expires one year from date of receipt when stored as instructed.	
References:	<p>Burmester, J.K., S.W. Qian, A.B. Roberts, A. Huang, S. Amatayakul-Chantler, L. Suardet, N. Odartchenko, J. A. Madri, M.B. Sporn (1993) Characterization of distinct functional domains of Transforming Growth Factor β. PNAS 90(18):8628–8632.</p> <p>Letterio, J. J., and A. B. Roberts (1998) Regulation of immune responses by TGF-β Annu. Rev. Immunol. 16:137–61.</p> <p>Peng, Y., Y. Laouar, M. O. Li, E. A. Green, R. A. Flavell (2004) TGF β regulates in vivo expansion of Foxp3-expressing CD4+CD25+ regulatory T cells responsible for protection against diabetes. PNAS 101(13):4572–4577.</p>	

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

Limited Use Label License: Research Use Only

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For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

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