

Technical Bulletin

Transforming Growth Factor- β 3 human

TGF- β 3, Recombinant, Expressed in HEK 293 Cells, HumanKine®, Suitable for Cell Culture

H8791

Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonyms: TGF- β 3

Product Description

HumanKine® TGF- β 3 is expressed in human 293 cells as a mature, disulfide linked, non-glycosylated homodimer with a predicted molecular mass of 25 kDa.

TGF- β 3 belongs to the TGF beta superfamily. TGF- β 3 is important for immune homeostasis by balancing lymphocyte proliferation, apoptosis, hematopoiesis, and embryogenesis. TGF- β 3 is crucial in cell growth, differentiation, and survival. TGF- β 3 is a strong growth inhibitor for normal and transformed epithelial, lymphoid, fibroblast, and keratinocyte cells. TGF- β 3 is a tumor suppressor in the early stages of carcinogenesis, but in the later stages acts as a tumor promoter by inducing epithelial-mesenchymal transition and stimulating angiogenesis. TGF- β 3 inhibits NK cells growth as well as B and T cell proliferation.

This product is lyophilized from a solution of 50 mM NaOAc, pH 3.7.

ED₅₀

$\leq 1.0\text{ ng/mL}$

The specific activity was determined by the dose-dependent inhibition of IL-4 induced proliferation of mouse HT-2 cells (BALB/c spleen activated by sheep erythrocytes in the presence of IL-2).

Purity

$\geq 95\%$

Endotoxin level

$\leq 1\text{ EU}/\mu\text{g}$

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses.

Preparation Instructions

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 4 mM HCl containing 0.1% endotoxin-free recombinant human serum albumin.

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$. The lyophilized product remains active for one year at $-20\text{ }^{\circ}\text{C}$.

Upon reconstitution, the cytokine can be stored at $2-8\text{ }^{\circ}\text{C}$ for short term only, or at $-20\text{ }^{\circ}\text{C}$ to $-80\text{ }^{\circ}\text{C}$ in aliquots for long term. Avoid repeated freeze-thaw cycles.

References

1. Tsang, M., et al., Cytokine, **7**, 389 (1995).
2. Sporn, M.B., et al., Cytokine Growth Factor Rev., **17**, 3-7 (2006).

Notice

We provide information and advice to our customers on application technologies and regulatory matters to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose.

The information in this document is subject to change without notice and should not be construed as a commitment by the manufacturing or selling entity, or an affiliate. We assume no responsibility for any errors that may appear in this document.

Technical Assistance

Visit the tech service page at SigmaAldrich.com/techservice.

Standard Warranty

The applicable warranty for the products listed in this publication may be found at SigmaAldrich.com/terms.

Contact Information

For the location of the office nearest you, go to SigmaAldrich.com/offices.

The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

Merck and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources.

© 2021 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.
H8791 Rev 09/21

