

ActiveMax® Recombinant Human TGF-Beta 1 / TGFB1

Catalog # TG1-H4212

For Research Use Only

Description

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| Source | ActiveMax® Human TGF-Beta 1 (TG1-H4212) is expressed from human 293 cells (HEK293). It contains AA Ala 279 - Ser 390 (Accession # P01137-1). Predicted N-terminus: Ala 279 |
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| Protein Structure | TGFB1(Ala 279 - Ser 390) P01137-1 |
| Molecular Characterization | This protein carries no "tag". The protein has a calculated MW of 12.8 kDa (monomer). The protein migrates as 13 kDa (monomer) under reducing (R) condition (SDS-PAGE). |
| Endotoxin | Less than 1.0 EU per µg by the LAL method. |
| Purity | >95% as determined by SDS-PAGE. |

Formulation and Storage

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| Formulation | Lyophilized from 0.22 µm filtered solution in 0.085% TFA in 60% ACN. Normally trehalose is added as protectant before lyophilization. Contact us for customized product form or formulation. |
| Reconstitution | Please see Certificate of Analysis for specific instructions. For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA. |
| Storage | For long term storage, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles. No activity loss was observed after storage at: <ul style="list-style-type: none"> • 4-8°C for 12 months in lyophilized state; • -70°C for 3 months under sterile conditions after reconstitution. |

Background

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| Background | Transforming growth factor beta 1 (TGFB1) is also known as TGF-β1, CED, DPD1, TGFB. is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. The TGFB1 protein helps control the growth and division (proliferation) of cells, the process by which cells mature to carry out specific functions (differentiation), cell movement (motility), and the self-destruction of cells (apoptosis). The TGFB1 protein is found throughout the body and plays a role in development before birth, the formation of blood vessels, the regulation of muscle tissue and body fat development, wound healing, and immune system function. TGFB1 is particularly abundant in tissues that make up the skeleton, where it helps regulate bone growth, and in the intricate lattice that forms in the spaces between cells (the extracellular matrix). Within cells, this protein is turned off (inactive) until it receives a chemical signal to become active. TGFB1 plays an important role in controlling the immune system, and shows different activities on different types of cell, or cells at different developmental stages. Most immune cells (or leukocytes) secrete TGFB1. TGFB1 has been shown to interact with TGF beta receptor 1, LTBP1, YWHAE, EIF3I and Decorin. |
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References

- (1) Ghadami M, et al., 2000, Am. J. Hum. Genet. 66 (1): 143-7.
- (2) Assoian R, et al., 1983, J Biol Chem, 258 (11): 7155-60.
- (3) Derynck R, et al., 1985, Nature 316 (6030): 701-5.
- (4) Letterio J, Roberts A, 1998, Annu Rev Immunol 16: 137-61.

Please contact us at TechSupport@acrobiosystems.com, if you have any questions about this product.

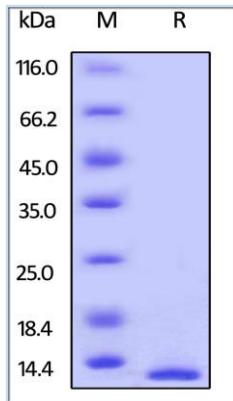
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Assay Data

SDS-PAGE Data



ActiveMax® Human TGF-Beta 1 on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.