

Recombinant human TGF- β 1

HEK293 cell expressed human transforming growth factor beta 1 with HSA

Catalog # rcyc-htgfb1

For research use only, not for diagnostic or therapeutic use

Version # 16D20-MM

PRODUCT INFORMATION

Content:

- 10 μ g of recombinant human TGF- β 1 provided as a white lyophilized powder
- 1.5 ml endotoxin-free water

Storage and stability:

- Recombinant human TGF- β 1 is shipped at room temperature. Upon receipt it should be stored at -20 °C.
- Upon resuspension, prepare aliquots of recombinant human TGF- β 1 and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months.

Note: Avoid repeated freeze-thaw cycles.

Quality control

- Purity greater than 95% as determined by SDS-PAGE
- Endotoxin: Less than 0.1 EU/ μ g as determined by the LAL method.
- The biological activity has been confirmed using HEK-Blue™ TGF- β cells (see validation data sheet available on our website).

DESCRIPTION

Transforming growth factor-beta (TGF- β), also known as tumor growth factor-beta, is a secreted cytokine that regulates numerous cellular functions, such as cell proliferation, apoptosis, differentiation and migration^{1, 2}. TGF- β exists in at least three isoforms; TGF- β 1, TGF- β 2 and TGF- β 3. In the immune system, TGF- β 1 is the predominant isoform¹. It is produced by many cell types, including macrophages, in a latent form which is bound to two other polypeptides, latent TGF- β 1 binding protein (LTBP) and latency-associated peptide (LAP). Upon cleavage of these proproteins, the mature TGF- β 1 is released. This mature protein can bind its cell surface receptors and initiate signaling. Recombinant human TGF- β 1 is intended for use in cell culture applications. It is produced in mammalian cells.

1. Travis MA. & Sheppard D., 2014. TGF- β activation and function in immunity. Annu Rev Immunol. 32:51-82. **2. Taylor AW., 2009.** Review of the activation of TGF-beta in immunity. J Leukoc Biol. 85(1):29-33.

CHARACTERISTICS

Source: Mammalian; HEK293 cells

Molecular mass: \approx 24 kDa in non-reducing conditions

Gene Name: TGFB1

Gene ID: 7040

UniProt ID: P01137

Formulation: Recombinant human TGF- β 1 was lyophilized from a 0.2 μ m filtered phosphate buffer solution (pH 7.4) containing human serum albumin (HSA).

Solubility: 100 μ g/ml in water

METHOD

Preparation of stock solution (100 μ g/ml):

1. Add 100 μ l endotoxin-free water (provided) to 10 μ g of recombinant human TGF- β 1.
2. Mix by pipetting. Do not vortex.
3. Prepare aliquots of recombinant human TGF- β 1 and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months. Avoid freeze-thaw cycles.
4. Further dilutions can be prepared in the appropriate aqueous buffer, such as cell culture medium containing serum.

RELATED PRODUCTS

Product	Catalog Code
Anti-hTGF- β -IgA	maba-htgfb-3
HEK-Blue™ TGF- β Cells	hkb-tgfb

TECHNICAL SUPPORT

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