


CA1083	HumanKine™ TGF beta 1			
	Prod. No. S2341-5UG	lot #: PRXXXXXX XXXX	Orders & Support	866 372-7442 support@primorigen.com
	<i>For Research Use Only Not intended for use in humans or animals</i>		Web	www.primorigen.com

Pack Size	5 µg
Species	Human
Expression System	HEK 293*
	Animal-derived product free
Molecular Mass	25 kDa homodimer, non-glycosylated
Activity	Typically 0.1 to 0.5 ng/mL
Purity	≥ 95%
Endotoxin	≤ 1 EU/µg

Background:

Recombinant human TGF beta 1 expressed in engineered human cells. TGF beta 1 is a 25 kDa disulfide linked homodimeric protein and belongs to the TGF beta superfamily. TGF beta 1 is important for immune homeostasis by balancing lymphocyte proliferation, apoptosis, hematopoiesis and embryogenesis. TGF beta 1 is crucial in cell growth, differentiation, and survival. TGF beta 1 is a strong growth inhibitor for normal and transformed epithelial, lymphoid, fibroblasts, and keratinocytes cells. TGF beta 1 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 beta 1 inhibits NK cells growth as well as B and T cell proliferation.

Note: Representative data are shown below (not Lot-specific).

Formulation:

Lyophilized in 50mM Sodium Acetate pH 4.5.

Reconstitution:

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

Storage and Stability:

Lyophilized products are stable for one year at -20°C to -80°C from date of receipt. Store only at -20°C to -80°C in working aliquots. Avoid repeated freeze-thaw cycles.

Quality Control Testing

Assay:

The specific activity was determined by 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 Confirmation:

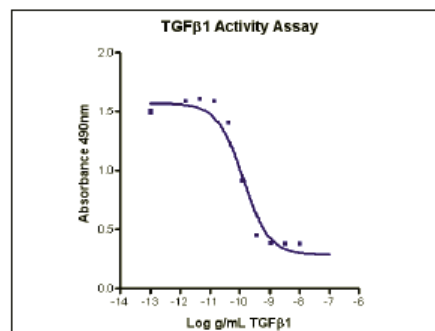
The protein was resolved by SDS-polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.

References:

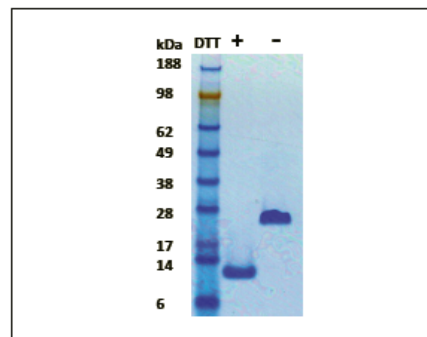
Tsang, M., et al, (1995) Cytokine 7, 389
Sporn, M. B., et al (2006) Cytokine Growth Factor Rev. 17, 3-7

**All HumanKine™ cytokines are expressed in HEK 293 cells.
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A. Activity Assay



B. SDS-PAGE



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