Human Transforming Growth Factor beta 1(TGF-b1)

Specimen Type	Platelet-free EDTA plasma
Specimen Volume	1 mL
Collection	Collect in lavender top tube using EDTA as an anticoagulant. Centrifuge for 15 minutes at 1000 x g within 30 minutes of collection. Centrifuge plasma again at 3000 x g for 10 minutes for complete platelet removal. Freeze at -20°C or below. **For fixed speed centrifuges such as 645e:** Collect in lavender top tube using EDTA as an anticoagulant. Centrifuge 3 times for 10 minutes at 1600 x g while decanting the plasma each time before the next spin within 30 minutes of collection. Freeze at -20°C or below.
Minimum Volume	0.25 mL
Handling	Ship frozen on dry ice.
Rejection Criteria	• Hemolyzed specimens • Hyperlipemic specimens • Specimens with particulate matter or microbial contamination • Specimens outside of listed stability
Stability	Refrigerated at 4 °C for 2 days Frozen at -20°C for 14 days. Frozen at -70°C for 30 days.
Methodology	ELISA
Reference Range	344 – 2382 pg/mL
Turnaround Time	Up to 4 business days.
CPT Code	83520
Clinical Significance	Transforming growth factor (TGF) play a crucial roles in tissue regeneration, cell differentiation, embryonic development, and regulation of the immune system. Transforming growth factor beta is found in hematopoietic (blood-forming) tissue and initiates a signaling pathway that suppresses the early development of cancer cells. It enhances the deposition of extracellular matrix and may play potential role in wound healing and cirrhosis

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	formation. Many cells synthesize TGF-*b* and almost all of them have specific receptors for this peptide.
Principle	This quantitative assay employs sandwich ELISA method. Microwells are pre-coated with antibodies against TGF-*b*1. The diluted patient samples (after activation) are added into the wells and any TGF-*b*1 present remains bound to the plate. After washing the wells, peroxidase labeled anti-TGF-*b*1 antibodies are added. Bound conjugate is visualized with TMB substrate and intensity of color is proportional to the concentration of TGF-*b*1 in the sample. Stop solution is added to each well to stop the reaction.