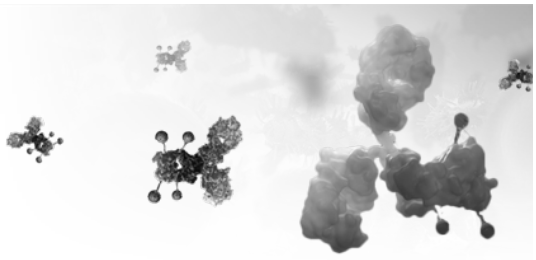

Recombinant Canine TGF beta 1 Protein [His] (DAGC267)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	A DNA sequence encoding the canine TGFB1 (Met1-Ser390) was expressed with a polyhistidine tag at the C-terminus.
Species	Canine
Purity	> 95 % as determined by SDS-PAGE
Conjugate	His
Applications	SDS-PAGE, ELISA
Predicted N terminal	Leu 30
Molecular Weight	The recombinant canine TGFB1 consists 381 amino acids and predicts a molecular mass of 43.4 kDa.
Endotoxin	< 1.0 EU per μg protein as determined by the LAL method.
Format	Lyophilized
Size	10 μg, 20 μg
Buffer	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Preservative	None
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

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BACKGROUND

Introduction	TGF-beta 1 is a member of the transforming growth factor beta (TGF-beta) family. The TGF-beta family of polypeptides are involved in the regulation of cellular processes, including cell division, differentiation, motility, adhesion and death. TGF-beta 1 positively and negatively regulates many other growth factors. It inhibits the secretion and activity of many other cytokines including interferon-γ, tumor necrosis factor-alpha and various interleukins. It can also decrease the expression levels of cytokine receptors. Meanwhile, TGF-beta 1 also increases the expression of certain cytokines in T cells and promotes their proliferation, particularly if the cells are immature. TGF-beta 1 also inhibits proliferation and stimulates apoptosis of B cells, and plays a role in controlling the expression of antibody, transferrin and MHC class II proteins on immature and mature B cells. As for myeloid cells, TGF-beta 1can inhibit their proliferation and prevent their production of reactive oxygen and nitrogen intermediates. However, as with other cell types, TGF-beta 1 also has the opposite effect on cells of myeloid origin. TGF-beta 1 is a multifunctional protein that controls proliferation, differentiation and other functions in many cell types. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts. Once cells lose their sensitivity to TGF-beta1-mediated growth inhibition, autocrine TGF-beta signaling can promote tumorigenesis. Elevated levels of TGF-beta1 are often observed in advanced carcinomas, and have been correlated with increased tumor invasiveness and disease progression.
Keywords	TGFB1; TGF-beta; DPD1; TGFB; TGFbeta; Canine TGFB1; Canine TGFB; Canine TGF-beta

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