TGF-β mAb (1D11.16.8), InVivoPure

Endotoxin level ≤ 2 EU/mg

Description:

The anti-TGF-β monoclonal antibody (clone 1D11.16.8) was purified from supernatant of HB-9849™ 1D11.16.8 from the ATCC.*

The 1D11.16.8 antibody (HB-9849™) is a mouse monoclonal antibody directed against transforming growth factor-beta (TGF-β) isoforms 1, 2, and 3. TGF-β is a multifunctional cytokine involved in the regulation of proliferation and differentiation of various cell types, including epithelial cells, endothelial cells, fibroblasts, neurons, and immune cells such as T lymphocytes and natural killer cells [1].

This antibody is known for its ability to neutralize TGF-β activity, making it a valuable tool in both in vitro and in vivo studies [2]. It has been shown to significantly improve outcomes in models of advanced pancreatic cancer by inhibiting TGF-β, resulting in reduced mortality, weight loss and muscle wasting [3].

The 1D11.16.8 antibody is highly specific and reacts with TGF-β in multiple species, including humans, mice, rats, monkeys, hamsters, dogs and cows. It is commonly used in research applications such as Western blotting, immunohistochemistry, and functional assays to study the role of TGF-β in various biological processes and diseases [4].

This antibody is produced exclusively under serum-free conditions from hybridoma and purified with Protein-A or Protein-G affinity chromatography.

Product-ID:	**AK3644P**
Clone:	1D11.16.8
Immunogen:	Animals were immunized with a bovine TGF-beta2
Host:	Mouse
Clonality:	Monoclonal
Isotype:	Mouse IgG1
Formulation:	Clear Liquid, PBS, pH 7.4, 0.2 µm sterile filtered
Concentration:	≥ 1.00 mg/mL
Purity:	≥ 90 % (CGE, reducing conditions)
	≤ 10 % aggregates (analytical SEC)
Endotoxin:	≤ 2 EU/mg (LAL test)
Storage:	2 - 8 °C
Recommended Isotype Control:	Mouse IgG1 κ Isotype Control (AK3421P)

The product is for research use only and not for use in diagnostic or therapeutic procedures.

***The ATCC trademark and trade name and any and all ATCC catalog numbers are trademarks of the American Type Culture Collection.**

InVivo BioTech Services GmbH is certified to ISO 9001 and ISO 13485.

Literature:

[1] Gold LI. The role for transforming growth factor-beta (TGF-beta) in human cancer. Critical Reviews in Oncogenesis. 1999 ;10(4):303-360. PMID: 10654929.

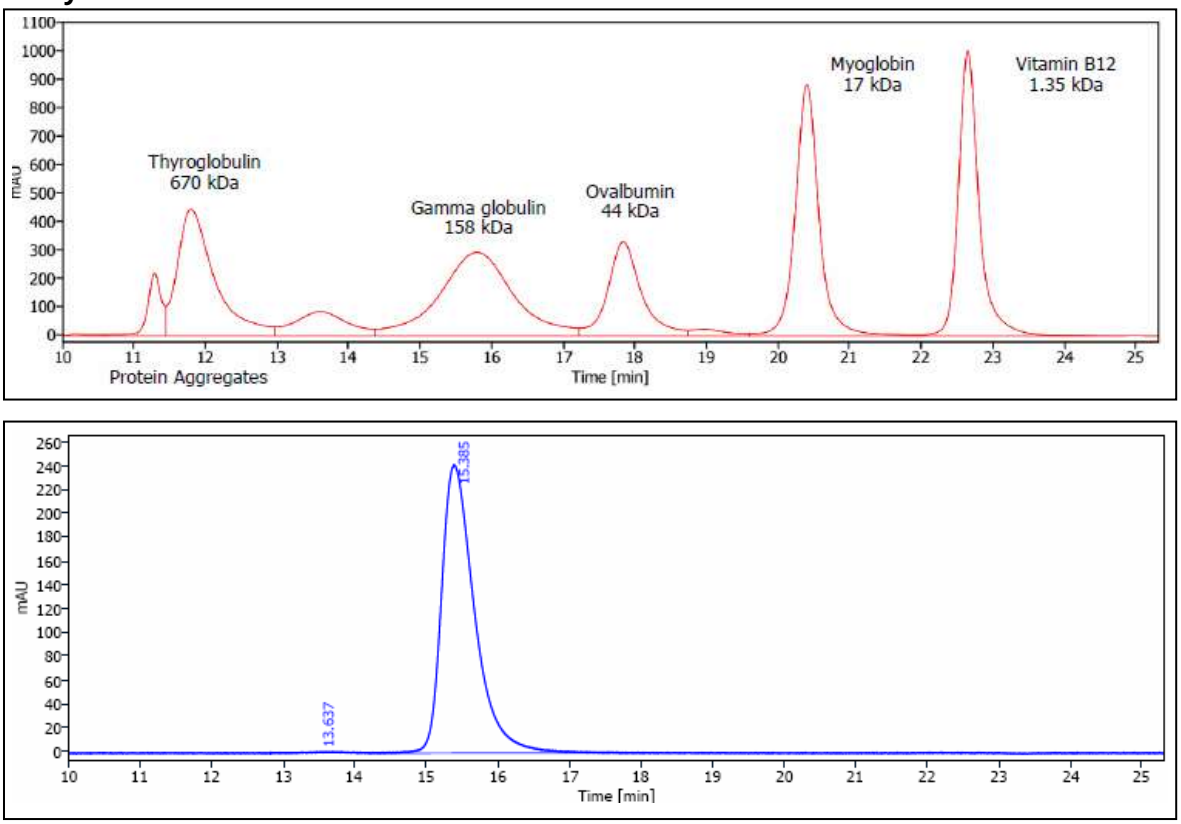
[2] Pu N, Zhao G, Gao S, Cui Y, Xu Y, Lv Y, Nuerxiati A, Wu W. Neutralizing TGF-β promotes anti-tumor immunity of dendritic cells against pancreatic cancer by regulating T lymphocytes. Cent Eur J Immunol. 2018;43(2):123-131. doi: 10.5114/ceji.2018.77381. Epub 2018 Jun 30. PMID: 30135623; PMCID: PMC6102619.

[3] Greco SH, Tomkötter L, Vahle AK, Rokosh R, Avanzi A, Mahmood SK, Deutsch M, Alothman S, Alqunaibit D, Ochi A, Zambirinis C, Mohaimin T, Rendon M, Levie E, Pansari M, Torres-Hernandez A, Daley D, Barilla R, Pachter HL, Tippens D, Malik H, Boutajangout A, Wisniewski T, Miller G. TGF-β Blockade Reduces Mortality and Metabolic Changes in a Validated Murine Model of Pancreatic Cancer Cachexia. PLoS One. 2015 Jul 14;10(7):e0132786. doi: 10.1371/journal.pone.0132786. PMID: 26172047; PMCID: PMC4501823.

[4] Huang T, Schor SL, Hinck AP. Biological activity differences between TGF-β1 and TGF-β3 correlate with differences in the rigidity and arrangement of their component monomers. Biochemistry. 2014 Sep 16;53(36):5737-49. doi: 10.1021/bi500647d. Epub 2014 Sep 5. PMID: 25153513; PMCID: PMC4165442.

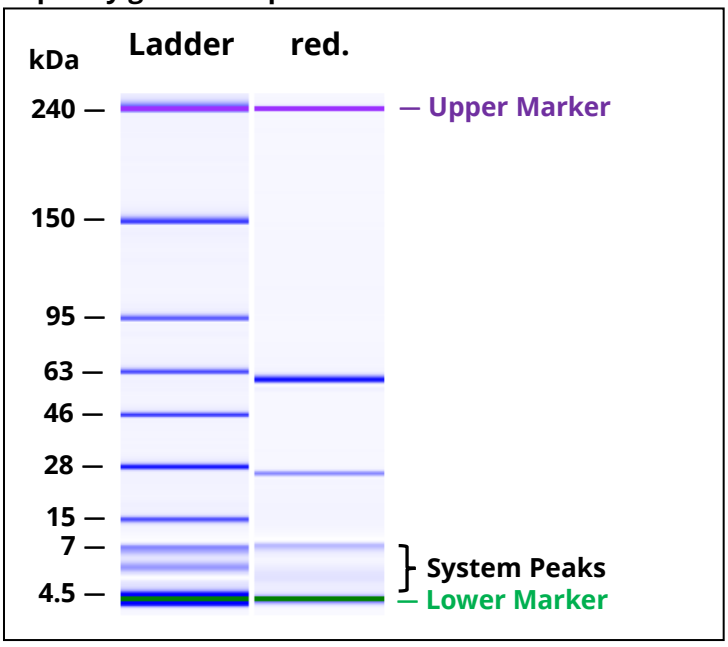
TGF-β mAb (1D11.16.8), InVivoPure — Supplementary Data

Analytical SEC:



Analytical SEC of purified protein (blue) in comparison with gel filtration standard (red).

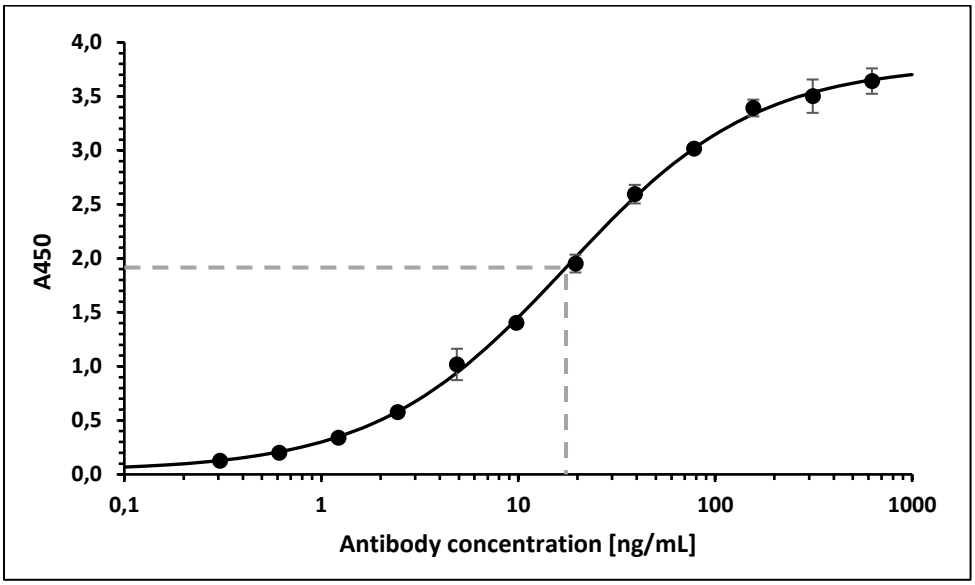
Capillary gel electrophoresis:



CGE of the purified protein under reducing (red.) conditions.

The following method was used for the additional characterization of one exemplary batch:

ELISA analysis:



ELISA analysis of TGF-β mAb (1D11.16.8) (Product-ID: AK3644P/01.1). Coating antigen: human TGF-β1 (Product-ID: RP_SZ_918) at 1 µg/mL. The EC50 of the antibody is 17,49 ng/mL.