INVIVO BioTech Services GmbH a BRUKER company

HLA-A,B,C mAb (W6/32), InVivoPure+

Endotoxin level ≤ 1 EU/mg

Description:

The HLA-A,B,C monoclonal antibody (clone W6/32) was purified from supernatant of HB-95™ W6/32 from the ATCC.*

The HLA-A,B,C mAb (W6/32) monoclonal antibody reacts with the human major histocompatibility complex (MHC) class I, HLA-A, B, C. MHC class I antigens associated with beta 2-microglobulin are expressed by all human nucleated cells and are central in cell-mediated immune response and tumor surveillance [1] [2]. W6/32 mAb recognizes a non-polymorphic epitope shared among products of the HLA-A, B, and C loci and immunoprecipitates both 43 kDa and 11-12 kDa chains. Crossreactivity is also seen in baboon, rhesus and cynomolgus monkey.
MHC class I plays a crucial role in the adaptive immune response by presenting endogenous antigens to cytotoxic CD8 T cells [3]. The T cell receptor (TCR)/CD3 complex of CD8 T cells interacts with peptide MHC class I, which induces CD8 T cell activation and subsequent cell killing. CD8 molecules also bind to MHC class I, which enhances TCR signaling. In contrast to CD8 T cells, MHC class I is an inhibitory ligand for natural killer cells (NK cells) and promotes self-tolerance [4].

This antibody is produced exclusively under serum-free conditions from hybridoma and purified with Protein-A or Protein-G affinity chromatography.
Applications Reported: This W6/32 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and immunohistology staining of frozen tissue sections.

Product-ID:	**AK3603P+**
Clone:	W6/32
Immunogen:	Animals were immunized with cells from human tonsils. Spleen cells were fused with P3X63Ag8 myeloma cells
Host:	Mouse
Clonality:	Monoclonal
Isotype:	IgG2a κ
Formulation:	Clear Liquid, PBS, pH 7.4, 0.2 µm sterile filtered
Concentration:	≥ 1.00 mg/mL
Purity:	≥ 95 % (CGE, reducing conditions) ≤ 5 % aggregates (analytical SEC)
Endotoxin:	≤ 1 EU/mg (LAL test)
Storage:	2 - 8 °C
Recommended Isotype Control:	Mouse IgG2a κ Isotype Control (AK3399P+)

IVS CS-0098, Rev. 01

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] Shah K, Al-Haidari A, Sun J, Kazi JU. T cell receptor (TCR) signaling in health and disease. Signal Transduct Target Ther. 2021 Dec 13;6(1):412. doi: 10.1038/s41392-021-00823-w. PMID: 34897277; PMCID: PMC8666445.

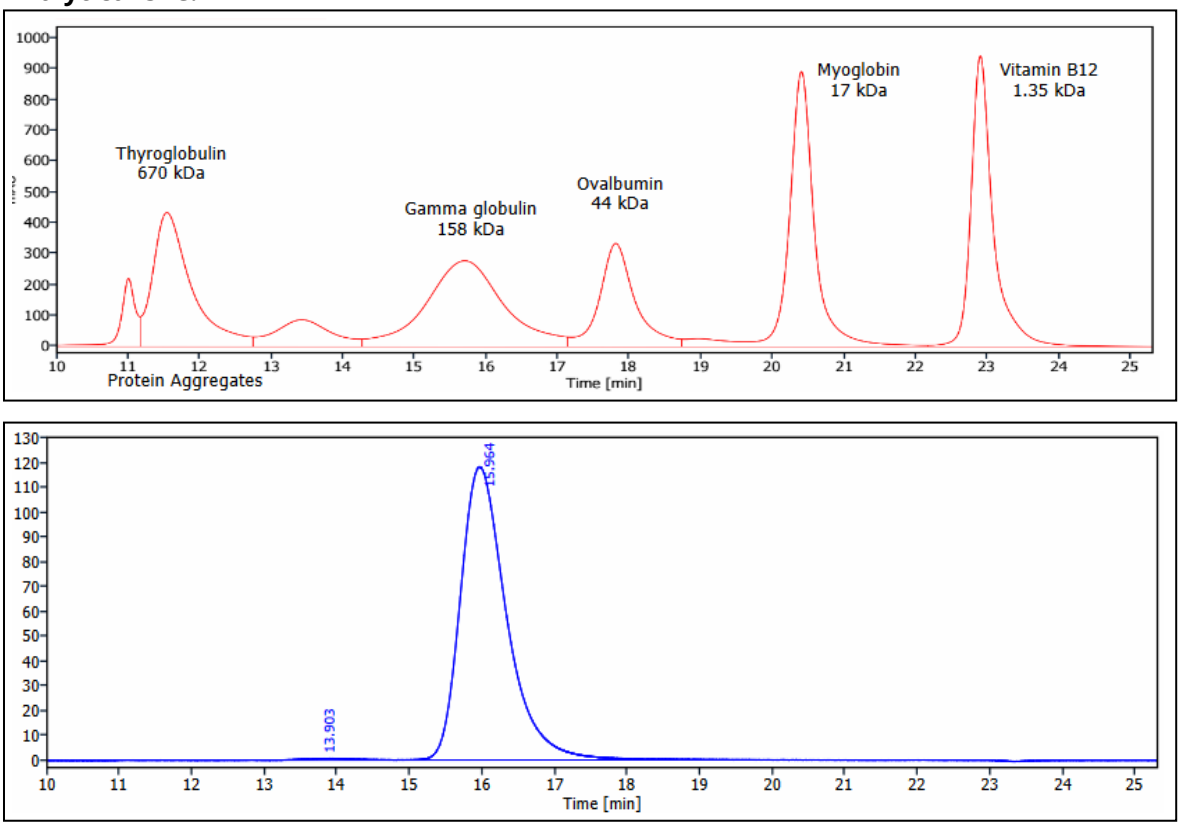
[2] Wieczorek M, Abualrous ET, Sticht J, Álvaro-Benito M, Stolzenberg S, Noé F, Freund C. Major Histocompatibility Complex (MHC) Class I and MHC Class II Proteins: Conformational Plasticity in Antigen Presentation. Front Immunol. 2017 Mar 17;8:292. doi: 10.3389/fimmu.2017.00292. PMID: 28367149; PMCID: PMC5355494.

[3] Cruz FM, Colbert JD, Merino E, Kriegsman BA, Rock KL. The Biology and Underlying Mechanisms of Cross-Presentation of Exogenous Antigens on MHC-I Molecules. Annu Rev Immunol. 2017 Apr 26;35:149-176. doi: 10.1146/annurev-immunol-041015-055254. Epub 2017 Jan 11. PMID: 28125356; PMCID: PMC5508990.

[4] Orr MT, Lanier LL. Natural killer cell education and tolerance. Cell. 2010 Sep 17;142(6):847-56. doi: 10.1016/j.cell.2010.08.031. PMID: 20850008; PMCID: PMC2945212.

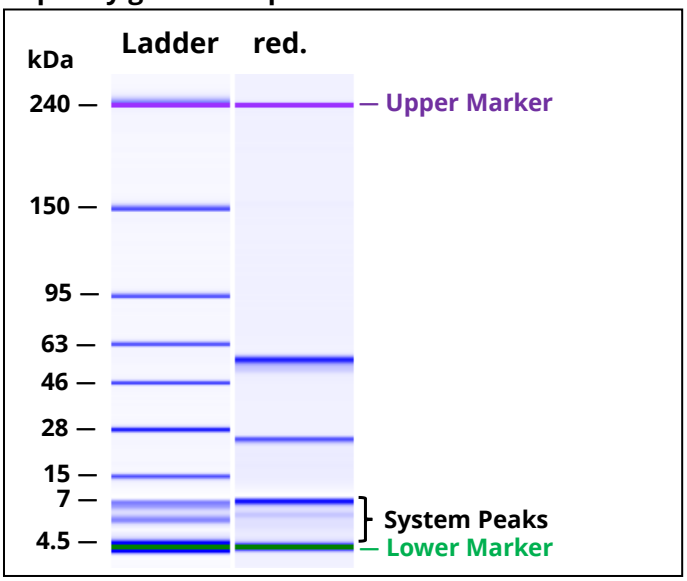
HLA-A,B,C mAb (W6/32), InVivoPure+ — Supplementary Data

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.