

Certificate of Analysis

PRODUCT: Human Complement – IgG/IgM Antibody Depleted Human Complement

CODE NO: R&D Samples

LOT NO: 28038-A, 28038-B

DATE OF MANUFACTURE: October 7, 2016

ORIGIN: U.S.A.

STORAGE: At or below -70 °C

SAFETY: *Statement of anonymity of donors:* This product consists of serum pooled from single units obtained from anonymous donors who are required to sign an informed consent. Donors acknowledge that their donation is made voluntarily and in consideration of the fee, and the blood and derivatives from it may be used in any manner decided by the corporation. The collection facilities strictly adhere to HIPPA regulations and donor's identities will never be revealed to end users of their blood or any components manufactured from it. No information is provided to Pel-Freez that would give any indication as to the identity of any donor(s) at any time. Pel-Freez has further processed this material as identified solely as "human serum" and has made no attempt to ascertain the identity of any donor from which the raw material was collected.

Each donor unit was tested prior to pooling according to FDA guidelines for the detection of Hepatitis B Surface Antigen, Antibodies to HIV and HVC, HIV-1 RNA, HBV DNA, HCV RNA, and Syphilis. All units yielded NON-REACTIVE/NEGATIVE results for each test performed. All blood is collected in the United States of America from human donors in FDA licensed centers and tested with FDA approved test kits. No test method can provide total assurance that Hepatitis B Virus, Hepatitis C Virus, Human Immunodeficiency Virus or other infectious agents are absent. Thus, all blood products should be handled at the Bio-Safety Level 2 as recommended by the CDC/NIH manual: BIO-SAFETY IN MICROBIOLOGICAL AND BIOMEDICAL LABORATORIES, FOR POTENTIALLY INFECTIOUS HUMAN SERUM OR BLOOD SPECIMENS.

PROCESS NOTES: This product consists of human serum that has been depleted of IgG and IgM antibodies by affinity chromatography. Depleted serum is filtered through a 0.45 µm membrane filter, aliquoted and frozen.

ASSAYS:

Required Assays	Result
Calculated CH50, based on QCP 3800 Hemolytic Titer	Donor serum for Lot 28038-A, prior to depletion: 201 Lot 28038-A, IgG/IgM depleted: 141 Donor serum for Lot 28038-B, prior to depletion: 215 Lot 28038-B, IgG/IgM depleted: 147
ELISA, Ig concentration	Donor serum for Lot 28038-A, prior to depletion: IgG: 9.2 mg/mL IgM: 0.20 mg/mL Lot 28038-A, IgG/IgM depleted: IgG: 0.000273 mg/mL IgM: 0.000004 mg/mL Donor serum for Lot 28038-B, prior to depletion: IgG: 10.0 mg/mL IgM: 0.27 mg/mL Lot 28038-B, IgG/IgM depleted: IgG: 0.000277 mg/mL IgM: 0.000006 mg/mL

QUALITY ASSURANCE

Quality Control Release Date: October 11, 2016



Chris Lyle
 Director of Technology

NOT FOR USE IN PRODUCTS SUBJECT TO LICENSE UNDER SECTION 351 OF THE PUBLIC SERVICE ACT
 SUITABLE FOR FURTHER MANUFACTURE OR RESEARCH PURPOSES