HUMAN HEPATITIS A IMMUNOGLOBULIN

Immunoglobulinum humanum hepatitis A

DEFINITION
Human hepatitis A immunoglobulin is a liquid or freeze-dried preparation containing immunoglobulins, mainly immunoglobulin G. The preparation is intended for intramuscular administration. It is obtained from plasma from selected donors having antibodies against hepatitis A virus. Human normal immunoglobulin (0338) may be added.

It complies with the monograph on Human normal immunoglobulin (0338), except for the minimum number of donors and the minimum total protein content.

POTENCY
The potency is determined by comparing the antibody titre of the immunoglobulin to be examined with that of a reference preparation calibrated in International Units, using an immunoassay of suitable sensitivity and specificity (2.7.1). The International Unit is the activity contained in a stated amount of the International Standard for anti-hepatitis A immunoglobulin. The equivalence in International Units of the International Reference Preparation is stated by the World Health Organisation.

The stated potency is not less than 600 IU/ml. The estimated potency is not less than the stated potency. The confidence limits (P = 0.95) of the estimated potency are not less than 80 per cent and not more than 125 per cent.

STORAGE
See Human normal immunoglobulin (0338).

LABELLING
See Human normal immunoglobulin (0338).

The label states the number of International Units per container.

HUMAN HEPATITIS B IMMUNOGLOBULIN FOR INTRAVENOUS ADMINISTRATION

Immunoglobulinum humanum hepatitis B ad usum intravenosum

DEFINITION
Human hepatitis B immunoglobulin for intravenous administration is a liquid or freeze-dried preparation containing immunoglobulins, mainly immunoglobulin G. It is obtained from plasma from selected and/or immunised donors having antibodies against hepatitis B surface antigen. Human normal immunoglobulin for intravenous administration (0918) may be added.

It complies with the monograph on Human normal immunoglobulin for intravenous administration (0918), except for the minimum number of donors, the minimum total protein content and the limit for osmolality.

POTENCY
The potency is determined by comparing the antibody titre of the immunoglobulin to be examined with that of a reference preparation calibrated in International Units, using an immunoassay of suitable sensitivity and specificity (2.7.1). The International Unit is the activity contained in a stated amount of the International Reference Preparation of hepatitis B immunoglobulin. The equivalence in International Units of the International Reference Preparation is stated by the World Health Organisation.

The stated potency is not less than 100 IU/ml. The estimated potency is not less than the stated potency. The confidence limits (P = 0.95) of the estimated potency are not less than 80 per cent and not more than 125 per cent.

STORAGE
See Human normal immunoglobulin for intravenous administration (0918).

LABELLING
See Human normal immunoglobulin for intravenous administration (0918).
Human measles immunoglobulin

The label states the minimum number of International Units of hepatitis B immunoglobulin per container.

01/2005:0397

HUMAN MEASLES IMMUNOGLOBULIN

Immunoglobulinum humanum morbillicum

DEFINITION

Human measles immunoglobulin is a liquid or freeze-dried preparation containing immunoglobulins, mainly immunoglobulin G (IgG). The preparation is intended for intramuscular administration. It is obtained from plasma containing specific antibodies against the measles virus. Human normal immunoglobulin (0338) may be added.

It complies with the monograph on Human normal immunoglobulin (0338), except for the minimum number of donors and the minimum total protein content.

POTENCY

The potency of the liquid preparation and of the freeze-dried preparation after reconstitution as stated on the label is not less than 50 IU per millilitre of neutralising antibody against measles virus.

The potency is determined by comparing the antibody titres of the immunoglobulin to be examined and of a reference preparation calibrated in International Units, using a challenge dose of measles virus in a suitable cell culture system. A method of equal sensitivity and precision may be used providing that the competent authority is satisfied that it correlates with neutralising activity for the measles virus by comparison with the reference preparation.

The International Unit is the specificneutralising activity for measles virus contained in a stated amount of the International Standard for human anti-measles serum. The equivalence in International Units of the International Reference Preparation is stated by the World Health Organisation.

Prepare serial two-fold dilutions of the immunoglobulin to be examined and of the reference preparation. Mix each dilution with an equal volume of a suspension of measles virus containing about 100 CCID50 in 0.1 ml and incubate protected from light at 37 °C for 2 h. Using not fewer than six cell cultures per mixture, inoculate 0.2 ml of each mixture into each of the cell cultures allocated to that mixture and incubate for not less than 10 days. Examine the cultures for viral activity and compare the dilution containing the smallest quantity of the immunoglobulin which neutralises the virus with that of the corresponding dilution of the reference preparation.

Calculate the potency of the immunoglobulin to be examined in International Units per millilitre of neutralising antibody against measles virus.

STORAGE

See Human normal immunoglobulin (0338).

LABELLING

See Human normal immunoglobulin (0338).

The label states the number of International Units per container.

01/2005:0338

HUMAN NORMAL IMMUNOGLOBULIN

Immunoglobulinum humanum normale

DEFINITION

Human normal immunoglobulin is a liquid or freeze-dried preparation containing immunoglobulins, mainly immunoglobulin G (IgG). Other proteins may be present. Human normal immunoglobulin contains the IgG antibodies of normal subjects. It is intended for intramuscular injection.

Human normal immunoglobulin is obtained from plasma that complies with the requirements of the monograph on Human plasma for fractionation (0853). No antibiotic is added to the plasma used.

PRODUCTION

The method of preparation includes a step or steps that have been shown to remove or to inactivate known agents of infection; if substances are used for inactivation of viruses, it shall have been shown that any residues present in the final product have no adverse effects on the patients treated with the immunoglobulin.

The product shall have been shown, by suitable tests in animals and evaluation during clinical trials, to be well tolerated when administered intramuscularly.

Human normal immunoglobulin is prepared from pooled material from at least 1000 donors by a method that has been shown to yield a product that:

- does not transmit infection;
- at a protein concentration of 160 g/l, contains antibodies for at least 2 of which (one viral and one bacterial) an International Standard or Reference Preparation is available, the concentration of such antibodies being at least 10 times that in the initial pooled material.

Human normal immunoglobulin is prepared as a stabilised solution, for example in a 9 g/l solution of sodium chloride, a 22.5 g/l solution of glycine or, if the preparation is to be freeze-dried, a 60 g/l solution of glycine. Multidose preparations contain an antimicrobial preservative. Single-dose preparations do not contain an antimicrobial preservative. Any antimicrobial preservative or stabilising agent used shall have been shown to have no deleterious effect on the final product in the amount present. The solution is passed through a bacteria-retain filter. The preparation may subsequently be freeze-dried and the containers closed under vacuum or under an inert gas.

The stability of the preparation is demonstrated by suitable tests carried out during development studies.

CHARACTERS

The liquid preparation is clear and pale-yellow to light-brown; during storage it may show formation of slight turbidity or a small amount of particulate matter. The freeze-dried preparation is a hygroscopic, white or slightly yellow powder or solid, friable mass.

For the freeze-dried preparation, reconstitute as stated on the label immediately before carrying out the identification and the tests, except those for solubility and water.

IDENTIFICATION

Examine by a suitable immunoelectrophoresis technique. Using antiserum to normal human serum, compare normal human serum and the preparation to be examined, both diluted to contain 10 g/l of protein. The main component