Rhophylac® 300 micrograms / 2 ml, solution for injection in pre-filled syringe
Human anti-D immunoglobulin

Please read all of this leaflet carefully before you are given this medicine because it contains important information for you.
- Keep this leaflet. You may need to read it again.
- If you have further questions, please ask your doctor or healthcare professional.
- If you get any side effects, talk to your doctor or healthcare professional. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet:
1. What Rhophylac is and what it is used for
2. What you need to know before you are given Rhophylac.
3. How to use Rhophylac
4. Possible side effects
5. How to store Rhophylac
6. Contents of the pack and other information

1. What Rhophylac is and what it is used for

What Rhophylac is
This medicine is a ready-to-use solution for injection, which comes in a pre-filled syringe. The solution contains special proteins, isolated from human blood plasma. These proteins belong to the class of "immunoglobulins", also called antibodies. The active ingredient of Rhophylac is a specific antibody called "anti-D (Rh) immunoglobulin". This antibody works against Rhesus factor type D.

What Rhesus factor type D is
Rhesus factors are special characteristics of human red blood cells. About 85% of the population carry the so called Rhesus factor type D (abbreviated "Rh(D)"). These people are called Rh(D) positive. People who do not carry Rhesus factor type D are called Rh(D) negative.

What anti-D (Rh) immunoglobulin is
Anti-D (Rh) immunoglobulin is an antibody, which works against Rhesus factor type D and is produced by the human immune system. When a Rh(D) negative person receives Rh(D) positive blood, their immune system will recognise the Rh(D) positive red blood cells as "foreign" to their body, and will attempt to destroy them. For this purpose, the immune system will build specific antibodies against Rhesus factor type D. This process is called "immunisation" and it usually takes some time (2–3 weeks). Therefore, the Rh(D) positive red blood cells will not be destroyed upon the first contact, and no signs or symptoms are usually seen then. But when the same Rh(D) negative person receives Rh(D) positive blood a second time, the antibodies will be "ready at hand" and their immune system will destroy the foreign red blood cells immediately.

How Rhophylac works
If a Rh(D) negative person is given a sufficient amount of human anti-D (Rh) immunoglobulin, isoimmunisation against Rhesus factor type D can be prevented. To achieve this, treatment with Rhophylac should commence before or early enough after the first contact to Rh(D) positive red
blood cells. The anti-D (Rh) immunoglobulins contained in this medicine will then destroy the foreign Rh(D) positive red blood cells immediately. Thus, the person's immune system will not be prompted to build-up its own antibodies.

**What Rhophylac is used for**

This medicine is used in two distinct situations:

A) **You are a Rh(D) negative pregnant woman, who carries a Rh(D) positive baby**

In this special situation you may be immunised by red blood cells from your baby passing over into your own blood circulation. If this happens, the first baby is not usually affected and fully healthy. But in the next Rh(D) positive baby, the mother's antibodies would destroy the baby's red blood cells already during pregnancy. This may lead to complications with the baby, including their possible death.

This medicine is also used if you are a Rh(D) negative pregnant woman and it is not known if your baby is Rh(D) positive.

As a Rh(D) negative pregnant woman, you may receive anti-D (Rh) immunoglobulins in the following situations:
- when you carry or have just delivered a Rh(D) positive baby;
- when you lose a Rh(D) positive baby (miscarriage, threatened miscarriage or abortion);
- when your pregnancy is severely complicated (ectopic pregnancy or hydatidiform mole);
- when it is likely that your baby's red blood cells have passed over into your own blood circulation (transplacental haemorrhage resulting from antepartum haemorrhage). This may, for example, happen when you experience vaginal bleedings during pregnancy;
- when your doctor needs to perform testing methods for foetal deformities (amniocentesis, chorionic biopsy);
- when your doctor or midwife needs to try moving the baby from outside (e.g., external version of the baby or other obstetric manipulative procedures);
- when you have an accident hurting your stomach or gut (abdominal trauma).

B) **You are a Rh(D) negative adult, child or adolescent (0-18 years) who has accidentally received infusions (transfusions) of Rh(D) positive blood (mismatched transfusion). This also applies to any blood products containing Rh(D) positive red blood cells.**

2. **What you need to know before you are given Rhophylac**

- Read this section carefully. The information given should be taken into consideration by you and your doctor before you are given this medicine.

**Do not take Rhophylac:**
- If you are allergic (hypersensitive) to human immunoglobulins or any of the other ingredients of this medicine (listed in section 6).
  - Tell your doctor or healthcare professional prior to treatment about any medicine which you have not well tolerated earlier.

- You must not receive injections into a muscle, if you suffer from a severe reduction in the number of platelets (thrombocytopenia) or any other severe blood clotting disorder.
  - Tell your doctor or healthcare professional prior to treatment if this applies to you. In this case this medicine may be given to you only by injection into a vein.

**Warnings and Precautions**
Talk to your doctor or healthcare professional before you are given Rhophylac.

- For protecting Rh(D) negative women after delivery of a Rh(D) positive baby, this medicine is always given to the mother, not to the new-born baby.
- This medicine is not intended for use in Rh(D) positive persons.

When stopping the administration may be required

- Rhophylac may trigger hypersensitivity reactions (allergic-type). In rare cases, allergic reactions such as a sudden fall in blood pressure or shock may occur (see also section 4 ‘Possible side effects’) even if you have previously received human immunoglobulins and tolerated them well.
  - Tell your doctor or healthcare professional immediately if such reactions occur. He or she will then stop the administration of the product and treat you depending on the nature and severity of the side effect.

Your doctor or healthcare professional will take special care

- if you have low levels of the IgA type immunoglobulins you are more likely to experience a hypersensitivity reaction.
  - Tell your doctor or healthcare professional if you have low levels of IgA. He or she will then very thoroughly weigh the benefit of treatment with this medicine against the increased risk of hypersensitivity reactions.
- if you are treated with this medicine after a mismatched transfusion, you may receive quite a large amount of the product (up to 3000 micrograms, equivalent to 20 ml or 10 syringes). In this case a so called haemolytic reaction occurs. This results from the intended destruction of the foreign Rh(D)-positive red blood cells. For this reason your doctor or healthcare professional will monitor you closely and may need to do special blood tests.
- if your body mass index (BMI) is greater or equal to 30 (calculated by dividing your body mass by the square of your height), the injection of Rhophylac into a muscle may not be fully effective. In this case, your doctor or healthcare professional may inject this medicine into a vein.

Information on safety with respect to infections

This medicine is made from human blood plasma (this is the liquid part of the blood). When medicines are made from human blood or plasma, certain measures are put in place to prevent infections being passed on to patients. These include:

- careful selection of blood and plasma donors to make sure those at risk of carrying infections are excluded,
- the testing of each donation and pools of plasma for signs of virus/infections,
- the inclusion of steps in the processing of the blood or plasma that can inactivate or remove viruses.

Despite these measures, when medicines prepared from human blood or plasma are administered, the possibility of passing on infection cannot be totally excluded. This also applies to any unknown or emerging viruses or other types of infections.

The measures taken are considered effective for enveloped viruses such as human immunodeficiency virus (HIV, the AIDS virus), hepatitis B virus and hepatitis C virus. The measures taken may be of limited value against non-enveloped viruses such as hepatitis A virus and parvovirus B19.

Immunoglobulins have not been associated with hepatitis A or parvovirus B19 infections, possibly because the antibodies against these infections, which are contained in the product, are protective.
It is strongly recommended that every time you receive a dose of Rhophylac, the name and batch number of the product are recorded in order to maintain a record of the batches used.

**Blood tests**

Tell your doctor or healthcare professional that you were treated with Rhophylac if you or your new-born baby have any blood tests (serological testing).

After you were given this medicine, the results of some blood tests may be altered for a certain period of time. If you are a mother having received this medicine before delivery, the results of some blood tests in your new-born baby may also be affected.

**Other medicines and Rhophylac**

Tell your doctor or healthcare professional if you are taking, have recently taken or might take any other medicines. This also applies to medicines obtained without a prescription.

**Vaccinations**

Tell your doctor or healthcare professional prior to treatment if you have just had a vaccination within the last 2 to 4 weeks. Also inform your vaccinating doctor after the treatment. He or she can then plan to check the efficacy of your vaccination.

This medicine may impair the efficacy of vaccinations with live virus vaccines, for example against measles, mumps, rubella (German measles) or varicella. Such vaccinations should therefore not be given for 3 months after you were last given Rhophylac.

**Pregnancy and breast-feeding**

This medicinal product is used in pregnancy or early after delivery. Immunoglobulins are excreted in human milk. In clinical studies, 432 mothers received this medicine before delivery and 256 of them again after delivery, and no side effects were seen in their children.

**Driving and using machines**

No effects of Rhophylac on the ability to drive and use machines are expected.

**Rhophylac contains sodium**

This medicine contains up to 11.5 mg (0.5 mmol) sodium per syringe. Your doctor or healthcare professional will take that into consideration if you are on a controlled sodium diet.

3. **How to use Rhophylac**

This medicine will be injected by your doctor or healthcare professional into a muscle or directly into a vein. Your doctor will decide how much Rhophylac you should receive, and which is the appropriate route of administration. For example, if your body mass index (BMI) is greater or equal to 30, he or she may inject this medicine directly into a vein (see also section 2).

The syringe should be brought to room or body temperature before use. **One syringe** should be used for **one patient** only (even if product is left over then).

You should be observed for at least 20 minutes after having received Rhophylac.

If you receive more Rhophylac than you should

Consequences of an overdosage are not known.
4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them. Such side effects may occur even if you previously received human immunoglobulins and tolerated them well.

Allergic reactions (hypersensitivity reactions) have been observed **rarely** (affects 1 to 10 users in 10,000). Early signs may appear as small itching bubbles on your skin (hives) or all over your body (generalised urticaria). They may progress to severe hypersensitivity / anaphylactic reactions such as a sudden fall in blood pressure or shock (e.g. you may feel light-headed, dizzy, faint on standing, cold in the hands and feet, sense an abnormal heart beat or chest pain, tightness of the chest, wheezing or have blurred vision) even when you have shown no hypersensitivity on previous administrations.

Tell your doctor or healthcare professional immediately if you notice such signs during the administration of Rhophylac. He or she will decide to stop the administration completely and start the appropriate treatment.

If you are given this medicine into a muscle, you may feel local pain and tenderness at the injection site.

The following side effects were **uncommon** (affects 1 to 10 users in 1000):
- fever and chills (shivering),
- generally feeling unwell (malaise),
- headache,
- skin reactions, redness of the skin (erythema), itching (pruritus).

The following side effects were **rare** (affects 1 to 10 users in 10,000):
- allergic reactions, anaphylactic shock
- nausea and/or vomiting,
- low blood pressure (hypotension),
- rapid heartbeat or pulse rate (tachycardia),
- joint pain (arthralgia),
- difficulty in breathing (dyspnoea)
- reactions at the injection site.

**Reporting of side effects**

If you get any side effects, talk to your doctor or healthcare professional. This includes any possible side effects not listed in this leaflet. You can also report side effects directly (see details below). By reporting side effects, you can help provide more information on the safety of this medicine.

**UK:**
Yellow Card Scheme.
Website: [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard)
or search for MHRA Yellow Card in the Google Play or Apple App store

**Malta:** ADR Reporting Website: [www.medicinesauthority.gov.mt/adrportal](http://www.medicinesauthority.gov.mt/adrportal)

**Ireland:**
HPRA Pharmacovigilance Section
Earlsfort Terrace
IRL - Dublin 2
Tel: +353 1 676 4971
Fax: +353 1 676 2517
Website: [www.hpra.ie](http://www.hpra.ie)
Email: medsafety@hpra.ie
5. How to store Rhophylac

- Keep out of the sight and reach of children.
- Store in a refrigerator (+2 to +8 °C).
- Do not freeze.
- Keep the syringe in the outer carton (in its sealed plastic pack) in order to protect from light.
- Do not use this medicine if you notice that the solution is cloudy or has deposits.
- Do not use this medicine after the expiry date which is stated on the outer carton and the syringe label after EXP. The expiry date refers to the last day of that month.
- Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What this medicine contains

- The active substance is human anti-D (Rh) immunoglobulin (antibodies of the IgG type against the so called Rhesus factor type D).
- The other ingredients are human albumin, glycine, sodium chloride and water for injections.
- This product contains a maximum of 30 mg/ml of human plasma proteins of which 10 mg/ml is human albumin as stabiliser. At least 95% of the other plasma proteins are human immunoglobulins (antibodies) of the IgG type. Rhophylac contains not more than 5 micrograms/ml human immunoglobulins (antibodies) of the IgA type.
- Rhophylac contains no preservatives.

What Rhophylac looks like and contents of the pack

This medicine is a clear or slightly pearly and colourless or pale yellow solution for injection. It comes in a glass syringe pre-filled with 2 ml of solution containing 1500 IU (300 micrograms) of anti-D immunoglobulin.

Rhophylac is available in single packs containing 1 pre-filled syringe and 1 injection needle, both packed in one blister pack (a clear plastic container sealed with a paper foil) or in multipacks comprising 5 single packs. Not all pack sizes may be marketed.

Marketing Authorisation Holder and Manufacturer

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