



Thymoglobulin® (Antithymocyte globulin [rabbit])

Pronounce: an-te-THY-moe-site GLOB-yu-lin RAB-bit

Classification: Immune Globulin, Immunosuppressant Agent, Polyclonal Antibody

About Thymoglobulin® (Antithymocyte globulin [rabbit])

What is Thymoglobulin?

Thymoglobulin is a polyclonal antibody, or an immune globulin, given as an intravenous (IV, into a vein) infusion. Thymoglobulin is used to fight a type of white blood cell called a T-lymphocyte (also called a thymocyte or T-cell). T-lymphocytes are part of your immune system. In some patients who have received transplants (kidney, heart, hematopoietic stem cells), T-lymphocytes might see the transplant as a threat and attack the transplanted organ or cells. This makes it hard for your body to accept the new organ or cells and can lead to rejection of your transplant. Thymoglobulin slows or stops the T-lymphocyte cells from attacking the transplanted organ or cells.

Thymoglobulin is made by taking donated human white blood cells (T-lymphocytes) and injecting them into a rabbit. The rabbit's blood makes its own antibodies (a blood protein) against these T-lymphocytes. These antibodies are then taken from the rabbit's blood and made into Thymoglobulin. When Thymoglobulin is infused into a patient, that person's body is able to take the antibodies (made by the rabbit) and use them to slow down or stop their own T-lymphocytes from attacking their own body.

Who needs a Thymoglobulin infusion?

Thymoglobulin is approved in the United States to prevent or treat kidney transplant rejection. There are times when Thymoglobulin may be used for other problems, including treating or preventing:

- Chronic graft-versus-host disease (GvHD).
- Heart transplant rejection.
- Intestinal and multi-visceral (stomach, duodenum, pancreas, small intestine, and sometimes liver) transplant rejection.
- Lung transplant rejection.

Your healthcare team will decide if Thymoglobulin is right for your treatment plan. This will be based on many things, including your blood work, your disease, and other treatments you may have received.

How is Thymoglobulin given?

Thymoglobulin is given as an intravenous (IV, into a vein) infusion, usually in the hospital. You will need to be watched closely during the infusion, which can take several hours.

One of the most common side effects of Thymoglobulin is an allergic reaction. Your healthcare team might do a "skin test" before you receive the infusion to see if you might be allergic to Thymoglobulin. Your provider will prick your skin with a tiny dose of Thymoglobulin and monitor for a skin reaction. Depending on these results, you may be given medications before the infusion to stop or lessen an allergic reaction. These include a steroid

(methylprednisolone), an H1 receptor antagonist (diphenhydramine), and an antipyretic (acetaminophen).

When the infusion starts, you will be watched closely for any signs of an allergic reaction or any other side effects. Your blood pressure, temperature, and pulse oximetry (oxygen levels in your blood) will be checked many times.

What are the risks of receiving Thymoglobulin?

Some of the most common risks of a Thymoglobulin infusion include:

- Allergic reaction, including anaphylaxis. Your healthcare team will watch for: fever, chills, itching, swelling, hives, trouble breathing, low blood pressure, nausea/vomiting.
- Urinary tract infection.
- Fever.
- Headache.
- High lipid levels.
- Anxiety.
- High potassium levels.
- A weakened immune system, including:
 - Low white blood cell count.
 - Low platelet count.

Thymoglobulin is made from blood products, so there is a small risk of the medicine being contaminated with an infectious agent. However, several steps are taken during the manufacturing process to prevent this from happening.

You should avoid having live vaccines while receiving this medication, as they may not work as well. These include herpes zoster (Zostavax) for shingles prevention, oral polio, measles, nasal flu vaccine (FluMist®), rotavirus, and yellow fever vaccines.

If you have an infection or are being treated for an infection, let your care team know right away before receiving Thymoglobulin.

It is not known if this medication has any effect on reproduction or pregnancy. Effective birth control is recommended during treatment and for at least 30 days after your last dose. Even if your menstrual cycle stops or you believe you are not producing sperm, you could still be fertile and conceive. You should not breastfeed while taking this medication.

When should I call my provider?

During the infusion, your care team will be watching you closely. Be sure to tell them right away if anything feels different. Once you are done the infusion and cleared by your team to go home, there are a few things to look for. Call your provider right away if you experience:

- Shortness of breath.
- Chest pain, dizziness.
- Fever or chills.

There is a chance of “serum sickness” after receiving Thymoglobulin. Serum sickness can happen right away to up to 1-2 weeks after your first dose. Call your provider if you have:

- Rash.

- Fever.
- Joint pain and aches.

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