



MG21702 | HUMAN BLOOD CELL, 2,000 TIMES ENLARGED



A detailed and enlarged model, mounted on a base, representing the various types of blood cells, including red blood cells, white blood cells (lymphocytes, monocytes, neutrophils, eosinophils, and basophils), and platelets. The piece is numbered and hand-painted, facilitating the identification of structures.

Applications:

The model is suitable for the study of anatomy in schools and universities, training, medical and scientific information, detailed study of blood structure, assistance in surgical dissection training and patient education, as well as demonstration of procedures.

Technical Advantages:

- * High didactic level;
- * Numbered and hand-painted;
- * High-precision natural molding;



- * Made of stable synthetic material resistant to breakage;
- * Precise replicas;
- * Includes an information card with related structures;
- * Resin approved in toxicological tests;
- * Model with polymer base for support.

3D Technology and Augmented Reality:

Our anatomical models offer a visual complement through information cards that activate 3D models viewable in augmented reality (AR). This interactive platform assists learning, allowing for comparative analysis of anatomical structures and offering resources for continuing education in anatomy, physiology, and pathophysiology.

Technical Specifications:

- * Scale: 2000 times natural size;
- * Material: Resin.

Main Structures:

Monocyte: Monocytes are the largest leukocytes (white blood cells), with a diameter between 15 and 50 μm , representing 3% to 9% of total blood leukocytes. They are phagocytic cells important in the innate immune response, acting in defense against pathogens and removal of dead or damaged cells. After migrating to the tissues, they differentiate into macrophages.

Lymphocyte: Lymphocytes are key cells of the adaptive immune system. There are different types, including B lymphocytes (produce antibodies) and T lymphocytes (involved in cellular immunity). They are responsible for the specific immune response, recognizing and attacking specific antigens.

Platelet: Platelets, or thrombocytes, are anucleated cell fragments originating from megakaryocytes in the bone marrow. They are essential for hemostasis, the process of blood coagulation, forming platelet plugs and releasing clotting factors to stop bleeding.

Plasma: Blood plasma is the liquid part of the blood, consisting mainly of water (about 90%), proteins (albumin, globulins, and fibrinogen), electrolytes (sodium, potassium, calcium, chloride, bicarbonate), nutrients, hormones, and dissolved gases. It is the transport medium for blood cells and various substances in the body.

Neutrophil: Neutrophils are the most abundant leukocytes, characterized by cytoplasmic granules that contain enzymes for the destruction of microorganisms. They are phagocytic cells that play a crucial role in the innate immune response, fighting bacterial and fungal infections.



Eosinophil: Eosinophils are granulocytes mainly involved in the immune response against multicellular parasites and in allergic reactions. Their granules contain proteins toxic to parasites and inflammatory mediators.

Red Blood Cell: Red blood cells, or erythrocytes, are anucleated, biconcave disc-shaped cells rich in hemoglobin. Their main function is the transport of oxygen from the lungs to the tissues and carbon dioxide from the tissues to the lungs.

Basophil: Basophils are less abundant granulocytes in the blood. Their granules contain histamine and heparin, substances involved in inflammatory and allergic reactions. They participate in allergic processes and immune responses.

Other structures can be verified directly on the physical piece or on the interactive 3D model.

About the Anatomical Models:

They are developed with resin replication technology, offering an alternative to natural anatomical models for teaching and research. They present the main morphological characteristics with a good cost-benefit ratio, resistance, hand painting, and numbering for precise identification of structures.

List of all visible structures:

- Monocyte
- Lymphocyte
- Platelets
- Plasma
- Neutrophil
- Eosinophil
- Red blood cell
- Basophil