

Simple Polarizing Gout Kit

Medical professionals and rheumatologists use specialized microscopes to determine different types of arthritis by taking synovial fluid from an affected joint, preparing a wet slide with the synovial fluid, and identifying the types of crystals under polarization.

The **Gout Kit** for the i4 Microscope includes the Simple Polarizing Kit plus the First Order Red Compensating Lens (whole wave plate), which allows easy identification of the specific crystals which cause arthritis.

- Gout is a type of arthritis that can occur when uric acid builds up in blood and causes joint inflammation. Gout is caused by Sodium Urate Crystals, which are needle-like with sharp edges with strong birefringence.
- Pseudo-gout (rheumatoid) is caused by Calcium Pyrophosphate Dehydrate Crystals (CPPD), which are small rods, squares, or rhomboids with weak birefringence.

Utilizing a Uric Acid control slide for reference, the user can easily determine which crystals are present in the synovial fluid by observing the color shift as the First Order Red Compensating Lens is rotated.

The **Gout Kit** is an economical and simple alternative to a fully polarizing microscope. When used with the i4 Infinity microscope the **Gout Kit** is a valuable tool for identifying crystals in synovial fluid.

- Simple to use
- Works with the I4 microscope
- Fraction of the cost of a fully polarizing Rheumatology microscope
- Includes Uric Acid control slide



I4P-POL7-GOUT

Simple Polarizing Gout Kit

Model #	Description
I4P-POL7-GOUT	Gout Kit (Simple Polarizer with Red Compensator Lens)
I4M-BGOU-ISL3	i4 Binocular Microscope with Gout Kit
I4M-TGOU-ISL3	i4 Trinocular Microscope with Gout Kit

Only looking at crystals in urine or other fluids? The Simple Polarizing Kit for I4 microscope includes only the upper Analyzer and lower Polarizer for urinalysis and other routine polarization applications. This low-cost Simple Polarizing Kit does not include the First Order Red Compensator Lens and is not suited for rheumatology applications.



I4P-POL7-7777

Simple Polarizing Kit

Model #	Description
I4P-POL7-7777	Simple Polarizing Kit (<i>without</i> Red Compensator Lens)

How To Use The Gout Kit

1. Install the upper **Analyzer** by removing the microscope head and placing the lens into the hole. Then reinstall the microscope head.



2. Install the lower **Polarizer** by setting it in place over the lower light lens housing.
3. Rotate the lower **Polarizer** until the light from the microscope is fully extinguished when looking through the eyepieces.



4. Set the **First Order Red Compensator Lens** on top of the lower **Polarizer**. Be careful not to move the lower **Polarizer** from its position.
5. Place the Uric Acid control slide or any other "known positive" control slide onto the stage and observe the shape and appearance of the crystals.
6. Rotate the **First Order Red Compensator Lens** through 90 degrees of rotation, and observe the color shift in the crystals on the control slide



7. Place the synovial fluid slide onto the stage and observe the shape and appearance of the crystals, and observe the color shift as the **First Order Red Compensator Lens** is rotated.
8. Identify the crystals based on comparison to the "known positive" control slide.