

Cartilage Staining Solution (Toluidine blue O Method)

Catalogue No.:abx090695

Cartilage is a resilient and smooth elastic tissue, rubber-like padding that covers and protects the ends of long bones at the joints and nerves, and is a structural component of the rib cage, the ear, the nose, the bronchial tubes, the intervertebral discs, and many other body components. It is not as hard and rigid as bone, but it is much stiffer and much less flexible than muscle. The matrix of cartilage is made up of glycosaminoglycans, proteoglycans, collagen fibers and, sometimes, elastin.

Toluidine blue, also known as TBO or tolonium chloride (INN) is a blue cationic (basic) dye used in histology and sometimes clinically. Toluidine blue solution is used in testing for lignin, a complex organic molecule that bonds to cellulose fibres and strengthens and hardens the cell walls in plants. A positive toluidine blue test causes the solution to turn from blue to pink.

Target:	Cartilage Staining Solution (Toluidine blue O Method)
Form:	Liquid
Storage:	Store at room temperature.
Buffer:	The exact formulation is proprietary.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

Directions for use: Suggested Protocol:

- 1. Using conventional methods, decalcify tissue, embed and fix.
- 2. Submerge the paraffin section into xylene, twice.
- 3. Wash using a series of increasing alcohol concentration, 1 min each, then wash with water.

4. Dye using the Cartilage Staining Solution. The optimal dyeing time will depend on the tissue and should be determined by the end user.

- 5. Wash for 2 min using water, then dry by blotting on filter paper.
- 6. Fix with acetone. Cartilage cells should appear blue-violet.
- 7. Treat with absolute ethanol and dimethylbenzene, and seal with neutral gum.
- 8. Cartilaginous, osteogenic cells should appear red-violet; the background is light blue.

OR