Cartilage stain kit (safranin O - fast green method)

Cartilage tissue is composed of chondrocyte nuclei and cartilage matrix. Cartilage tissue and its surrounding perichondrium constitute cartilage. Cartilage is divided into hyaline cartilage, elastic cartilage, and fibrous cartilage according to the different cellulose components contained in the matrix. There are many methods for cartilage staining, such as toluidine blue method, alcian blue method, safranin O method, etc. The staining principle of the modified safranin O - fast green cartilage staining method is that basophilic cartilage combines with the alkaline dye safranin O to show red, and eosinophilic bone combines with the acidic dye fast green to form green or blue, which contrasts sharply with the red cartilage, thereby distinguishing cartilage tissue from bone tissue. Safranin O is a cationic dye that binds to polyanions. Its display of cartilage tissue is based on the combination of cationic dyes with anionic groups (chondroitin sulfate or keratan sulfate) in polysaccharides. Safranin O coloring is approximately proportional to the concentration of anions, which indirectly reflects the content and distribution of proteoglycans in the matrix. When cartilage is damaged, glycoproteins in the cartilage are released, making the matrix components unevenly distributed, resulting in light or no staining with Safranin O. Quantitative analysis of cartilage matrix stained with Safranin O can be performed using image analysis software. Fast Green binds to collagen fibers and is not easy to fade. Differentiation of Safranin O-Fast Green staining is critical. Excessive differentiation can easily lead to no staining of the slice, and insufficient differentiation can easily lead to too dark staining of the slice.

Catalog No.	261062
Size	5 x 50mL
Product Category	Histochemical Stain
Storage/Stability	Ambient/1 year
Shipping	Ambient