Collagen I, rat tail

Main structural protein in the extracellular matrix

Collagen is the main component in connective tissue and helps to provide support for tissues. It is made up of several classes, with Type 1 collagen being the most common. Type 1 collagen has a herterotrimeric triple helical structure made up of two alpha-1(I) and one alpha-2(I) chains that form into elongated fibrils which are extremely strong. These fibrils can be found in skin, tendons, ligaments, and other connective tissues. Type 1 collagen has been shown to be useful as a substrate that promotes cell growth and proliferation. Under acidic conditions the protein is soluble, however by raising the temperature and pH the solution forms into a solid gel that can be useful for cellular studies. It can also be dried to form a thin layer on solid surfaces such as plates, slides, or coverslips to aid in cell attachment.

Citations: 30 View Online »

Ordering Information

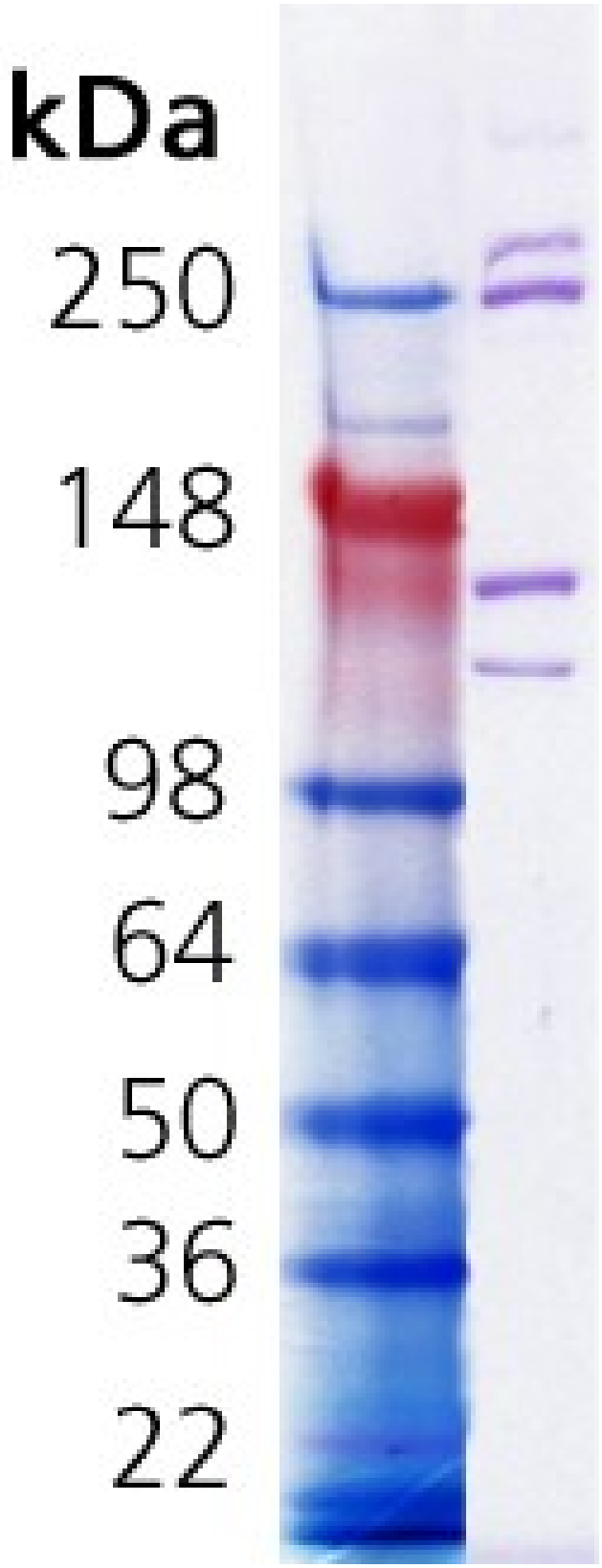
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ALX-522-435-0020	20mg
ALX-522-435-0100	100mg

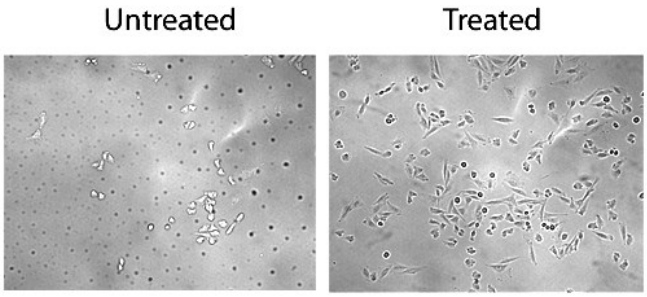
Manuals, SDS & CofA

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- New formulation enhances gelling over a larger concentration range.



Coomassie stained SDS-PAGE. Lane 1, Molecular weight marker. Lane 2, 1.0µg Collagen I, rat tail.



Glass coverslips were coated with or without collagen in 60% ethanol and allowed to dry overnight. CHO cells were plated at onto the coverslips and grown for two days at 37oC with 5% CO2. Cells were fixed in 10% buffered formalin. Coverslips were washed in PBS, mounted upside down onto microscope slides, and imaged with a 20X objective.

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Handling	Keep sterile. Do not freeze.
Short Term Storage	+4°C
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Activity	Tested in cell proliferation assay – Increased attachment of cells on collagen coated coverslips.
Alternative Name	COL1
Appearance	Hazy viscous liquid.
Application Notes	Can be used for preparation of collagen gels, thin layer coating of surfaces (culture plates, slides, coverslips).
Concentration	5mg/ml
Endotoxin Content	<100 EU/mg purified protein (LAL test)
Formulation	Sterile liquid. In 0.02N acetic acid.
MW	235kDa, 215kDa, 130kDa, 115kDa
Purity	≥90% (SDS-PAGE)
Source	Isolated from rat tail tendons.

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