

SIGMA-ALDRICH

F2518 SIGMA

Fibronectin human foreskin fibroblasts

lyophilized powder, BioReagent, suitable for cell culture

Synonym: Fibronectin

SDS

EC Number **289-149-2** MDL number **MFCD00131062**POPULAR DOCUMENTS: [DATASHEET \(PDF\)](#) | [SPECIFICATION SHEET \(PDF\)](#)

Properties

Related Categories	Adhesion, Attachment, and Matrix Factors , Adhesion, Attachment, and Matrix Factors for Stem Cell Expansion , Application Index , Attachment Factors , Attachments Factors , More...
product line	BioReagent
form	lyophilized powder
surface coverage	1-5 µg/cm²
solubility	H₂O: 1 mg/mL at 37 °C (Store reconstituted solution in working aliquots at -20°C or lower.)
suitability	suitable for cell culture
storage temp.	-20°C
Gene Information	human ... FN1(2335)

Description

Analysis Note

Protein homogeneity is evaluated by immunoelectrophoresis.

Application

Epithelial cells, mesenchymal cells, neuronal cells, fibroblasts, neural crest cells, endothelial cells

Caution

Vortexing, excessive agitation, repeated freezing and thawing of reconstituted fibronectin are not recommended.

Packaging

0.5 mg in serum bottle

Preparation Note

dialyzed against chloroform

Reconstitution

Store reconstituted solution in working aliquots at -20°C or lower.

Physical form

Lyophilized in CAPS buffered saline

Price and Availability

SKU-Pack Size	Availability	Price (CAD)	Quantity
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F2518-.5MG	✔ Only 2 left in stock (more on the way) - FROM	794.00	0 ★ i
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F0635

Fibronectin from rat plasma powder, BioReagent, suitable for cell culture

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F0635

Fibronectin from rat plasma powder, BioReagent, suitable for cell culture

F4759

Fibronectin from bovine plasma powder, BioReagent, suitable for cell culture

F0895

Fibronectin from human plasma liquid, 0.1% (Solution), BioReagent, suitable for cell culture

F1141

Fibronectin from bovine plasma solution, sterile-filtered, BioReagent, suitable for cell culture

F0556

Fibronectin solution from human fibroblasts cell culture derived, ~0.5 mg/mL, sterile-filtered, BioReagent, suitable for cell culture

S5171

Superfibronectin from human plasma solution, sterile-filtered, BioReagent, suitable for cell culture

F3542

Fibronectin Fragment III₁-C human recombinant, expressed in *E. coli*, lyophilized powder, ≥90% (SDS-PAGE)

F1056

Fibronectin from human plasma lyophilized powder, BioReagent, suitable for cell culture, ≥95% (SDS-PAGE)

F8141

Fibronectin-like Engineered Protein Polymer-plus genetically engineered powder, sterile; autoclaved, BioReagent, suitable for cell culture

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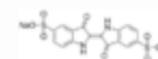
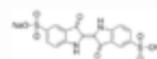
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[Propiverine hydrochloride](#)
≥98% (HPLC)

57000
[Indigo carmine](#)
for microscopy (Bact., Hist.), indicator (pH 11.5-14.0)

1339000
[Indigotindisulfonate sodium](#)
United States Pharmacopeia (USP) Reference Standard



Safety Information

Personal Protective Equipment	Eyeshields, Gloves, type N95 (US), type P1 (EN143) respirator filter
RIDADR	NONH for all modes of transport
WGK Germany	3

Documents

Certificate of Analysis



Certificate of Origin



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[F2518 - Datasheet \(136 KB\)](#)

Articles

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Keywords: Cancer, Cell attachment, Cell culture, Cell proliferation, Gastrointestinal, Gene expression, Transcription, transformation

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Animal cells and tissue culture techniques are constantly improved to optimize in vitro cell culture conditions. Extracellular Matrix (ECM) proteins coating, chemical or physical modification of the ...

Keywords: Adhesion, Angiogenesis, Apoptosis, Asymmetric synthesis, Cancer, Cell attachment, Cell culture, Cell proliferation, Coagulation, Endocrinology, Growth factors, Hormones

[Fibronectin \(FN\)](#)

Fibronectin (FN) is a multifunctional, extracellular matrix glycoprotein composed of two nearly identical disulfidebound polypeptides of molecular weight 220 kDa. Cellular fibronectin is structurally...

George Sitterley

BioFiles 2008, 3.8, 8.

Keywords: Adhesion, Cell culture, transformation

[Fibronectin Cell Attachment Protocol](#)

Freezing and thawing of reconstituted fibronectin is not recommended as breakdown of protein will occur.

George Sitterley

BioFiles 2008, 3.8, 9.

Keywords: Phase transitions

[What is the Extracellular Matrix?](#)

The extracellular matrix (ECM) is secreted by cells and surrounds them in tissues. It has long been understood to be the structural support for cells since its characteristics set the characteristics...

Keywords: Adhesion, Cell culture, Cellular processes, Epimerizations, Growth factors, Immobilization, Sulfations

Related Content

[癌症干细胞](#)

传统观点认为，癌症是环境或内部因素诱导正常细胞内的关键致癌基因和肿瘤抑制基因突变导致的一种疾病。当这些突变导致细胞向更原始、高度增殖状态转化，克隆扩张形成白血病或实体肿瘤时，就会出现癌症的临床表现¹。然而，这种模式不能够完全解释许多肿瘤和转移瘤的长发育延迟，产生细胞去分化和细胞永生的起始诱导机制，或肿瘤本身内的细胞功能和表型多样性起源。过去十年中，越来越多的证据表明，恶性肿瘤起源于组织干细胞在突...

Keywords: Angiogenesis, Cancer, Eliminations, Gene expression, Growth factors, Ligands, Metabolic Pathways, Phosphorylations

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1. PPFIA1 drives active $\alpha 5\beta 1$ integrin recycling and controls fibronectin fibrillogenesis and vascular morphogenesis.

Giulia Mana et. al

Nature communications, 7(7), undefined (2016-11-24)

Basolateral polymerization of cellular fibronectin (FN) into a meshwork drives endothelial cell (EC) polarity and vascular remodelling. However, mechanisms coordinating $\alpha 5\beta 1$ integrin-mediated extracellular FN endocytosis and exocytosis of newly synth...[Read More](#)

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2. Natural variant of collagen-like protein a in serotype M3 group a Streptococcus increases adherence and decreases invasive potential.

Anthony R Flores et. al

Infection and immunity, 83(83), undefined (2015-1-7)

Group A Streptococcus (GAS) predominantly exists as a colonizer of the human oropharynx that occasionally breaches epithelial barriers to cause invasive diseases. Despite the frequency of GAS carriage, few investigations into the contributory molecu...[Read More](#)

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3. Increased synthesis and deposition of extracellular matrix proteins leads to endoplasmic reticulum stress in the trabecular meshwork.

Ramesh B Kasetti et. al

Scientific reports, 7(7), undefined (2017-11-4)

Increased synthesis and deposition of extracellular matrix (ECM) proteins in the trabecular meshwork (TM) is associated with TM dysfunction and intraocular pressure (IOP) elevation in glaucoma. However, it is not understood how ECM accumulation leads...[Read More](#)

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4. Cellular fibronectin containing extra domain A promotes arterial thrombosis in mice through platelet Toll-like receptor 4.

Prem Prakash et. al

Blood, 125(125), undefined (2015-2-24)

Cellular fibronectin containing extra domain A (Fn-EDA+), which is produced in response to tissue injury in several disease states, has prothrombotic activity and is known to interact with Toll-like-receptor 4 (TLR4). The underlying mechanism and cel...[Read More](#)

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5. In vitro colonization of the muscle extracellular matrix components by Escherichia coli O157:H7: the influence of growth medium, temperature and pH on initial adhesion and induction of biofilm formation by collagens I and III.

Caroline Chagnot et. al

PloS one, 8(8), undefined (2013-3-22)

Enterohemorrhagic Escherichia coli (EHEC) O157:H7 are responsible for repeated food-poisoning cases often caused by contaminated burgers. EHEC infection is predominantly a pediatric illness, which can lead to life-threatening diseases. Ruminants are ...[Read More](#)

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6. Construction and characterization of a multilayered gingival keratinocyte culture model: the TURK-U model.

Ulvi K Gursoy et. al

Cytotechnology, 68(68), undefined (2016-10-19)

In construction of epithelial cells as multilayers, the cells are grown submerged to confluence on fibroblast-embedded collagen gels and, then, lifted to air to promote their stratification. We recently demonstrated that gingival epithelial cells for...[Read More](#)

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7. Failure of cell cleavage induces senescence in tetraploid primary cells.

Andreas Panopoulos et. al

Molecular biology of the cell, 25(25), undefined (2014-8-22)

Tetraploidy can arise from various mitotic or cleavage defects in mammalian cells, and inheritance of multiple centrosomes induces aneuploidy when tetraploid cells continue to cycle. Arrest of the tetraploid cell cycle is therefore potentially a crit...[Read More](#)

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8. Generation of an expandable intermediate mesoderm restricted progenitor cell line from human pluripotent stem cells.

eLife, 4(4), undefined (2015)

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9. Neural crest cell-autonomous roles of fibronectin in cardiovascular development.

Xia Wang and Sophie Astrof

Development (Cambridge, England), 143(143), undefined (2015-11-11)

The chemical and mechanical properties of extracellular matrices (ECMs) modulate diverse aspects of cellular fates; however, how regional heterogeneity in ECM composition regulates developmental programs is not well understood. We discovered that fib...[Read More](#)

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10. Factors influencing the cell adhesion and invasion capacity of Mycoplasma gallisepticum.

Ursula Fürnkranz et. al

Acta veterinaria Scandinavica, 55(55), undefined (2013-9-10)

The cell invasiveness of Mycoplasma gallisepticum, the causative agent of respiratory disease in chickens and infectious sinusitis in turkeys, may be a substantial factor in the well-known chronicity of these diseases and in the systemic spread of in...[Read More](#)

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11. Progerin expression disrupts critical adult stem cell functions involved in tissue repair.

Laurin Marie Pacheco et. al

Aging, 6(6), undefined (2015-1-9)

Vascular disease is one of the leading causes of death worldwide. Vascular repair, essential for tissue maintenance, is critically reduced during vascular disease and aging. Efficient vascular repair requires functional adult stem cells unimpaired by...[Read More](#)

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