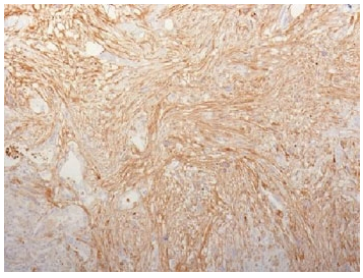
Fibronectin Antibody [clone HFN7.1] (V2124)

Catalog No.	Formulation	Size
V2124-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2124-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2124SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (9) **Bulk quote request**

Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	HFN7.1
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
UniProt	P02751
Localization	Connective tissue matrix
Applications	Flow Cytometry : 1-2ug/1x10^6 cells Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This **Fibronectin antibody** is available for research use only.



IHC staining of FFPE human pancreatic adenocarcinoma tissue with Fibronectin antibody (clone HFN7.1), HRP-secondary and DAB substrate. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Fibronectin antibody is an important tool for studying extracellular matrix biology, tissue remodeling, and cell adhesion. The encoded protein, fibronectin (FN1), is a large glycoprotein secreted into the extracellular space, where it assembles into fibrillar networks that provide structural support and regulate cell behavior. Fibronectin binds to integrins and extracellular molecules including collagen, heparin, and fibrin, integrating cell adhesion with matrix organization. Through these interactions, fibronectin guides processes such as wound healing, angiogenesis, embryonic development, and tumor progression.

Fibronectin exists in two major forms: soluble plasma fibronectin and insoluble cellular fibronectin. Plasma fibronectin circulates in the blood and contributes to hemostasis by supporting platelet adhesion and clot stabilization. Cellular fibronectin is produced by fibroblasts and other cells, assembling into fibrils that shape the extracellular matrix and mediate mechanotransduction. Alternative splicing of the FN1 transcript generates isoforms with tissue-specific and developmental functions, enhancing its biological versatility.

During wound repair, fibronectin provides an initial scaffold for fibroblast migration and collagen deposition, ensuring proper tissue regeneration. In angiogenesis, it supports endothelial cell adhesion and sprouting, linking extracellular cues to vascular growth. Dysregulated fibronectin expression is implicated in fibrotic diseases, where excessive matrix accumulation disrupts organ function. Elevated fibronectin levels have also been observed in cancer, where it promotes invasion, metastasis, and tumor angiogenesis by interacting with integrins and growth factors.

At the molecular level, fibronectin contains multiple binding domains for integrins, collagen, fibrin, and heparan sulfate proteoglycans. These domains allow fibronectin to act as a molecular bridge between cells and their surrounding environment. The RGD (arginine-glycine-aspartic acid) motif within fibronectin mediates integrin binding and is central to its role in cell adhesion and signaling. This structural complexity explains fibronectinâ€™s involvement in both mechanical support and regulation of cellular processes.

The Fibronectin antibody is widely applied in immunohistochemistry, immunofluorescence, western blotting, and ELISA to detect expression and localization in tissues and cultured cells. These applications are crucial for research into extracellular matrix remodeling, cancer progression, vascular biology, and regenerative medicine. For investigators focused on fibrosis, angiogenesis, or matrix biology, the Fibronectin antibody provides a reliable and specific detection tool. NSJ Bioreagents offers validated antibodies that ensure accuracy and reproducibility in advanced molecular studies.

Application Notes

Titration of the antibody may be required for optimal performance.

1. FFPE staining requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.

Immunogen

Purified human Fibronectin was used as the immunogen for this antibody.

Storage

Store the Fibronectin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

References (1)