

Gamme ENGIMATRIX®

NVH021 : Recombinant Collagen-like protein

(For Research Use Only – Not for Human Use)

Collagen, the most abundant extracellular matrix protein, form a family of protein consisting of 28 different types organized in different macromolecular structures (fibrillar, network, ...) and playing a major role in tissue plasticity. They all shared the characteristic of being structured in triple-helix, essential for their biological activity. Collagens are now recognized as full players in many cellular processes such as adhesion, proliferation, migration and cell differentiation.

Background

Recent research on the role of collagens in these processes have enabled the mapping of its interaction network and to identify the binding sites for different cellular receptors, proteins or extracellular matrix constituents, opening the way for the development of new engineered collagens, fully characterized and functional, with a high affinity for these different partners.

Innovation

ENGIMATRIX® is the first market range offering new generation, patented, recombinant collagens, called **collagen-like proteins**, derived from protein engineering, that integrate into their sequence different binding motifs described to interact with different collagen receptors ($\alpha 1\beta 1$, $\alpha 2\beta 1$, $\alpha 10\beta 1$, $\alpha 11\beta 1$, DDR1 and DDR2 receptors, GPVI and RGD-dependent integrins) and / or protein partners of collagen (Willebrand factor and SPARC protein).

Applications

NVH021 is a research-grade and non fibrillar recombinant collagen-like protein specifically developed to interact with different collagen partners and ideal for thin coating of surfaces. It be suitable for:

- Increased adhesion, proliferation, migration and cell growth
- Ligand for collagen receptor binding assays
- Study of Willebrand- and SPARC-collagen binding by ELISA and SPR
- Cellular differentiation induction
- Cell-based models

DESCRIPTION

Collagen-like protein

QUANTITY

10 μ g/mL x 2 mL, sterile-filtered

FORM

Soluble in water at pH 7

PURITY

\geq 95%, mass spectrometry

SOURCE

Recombinant (Mammalian cells)

STORAGE AND STABILITY:

12 months at - 20°C or 1 month at 4°C

Coating protocol:

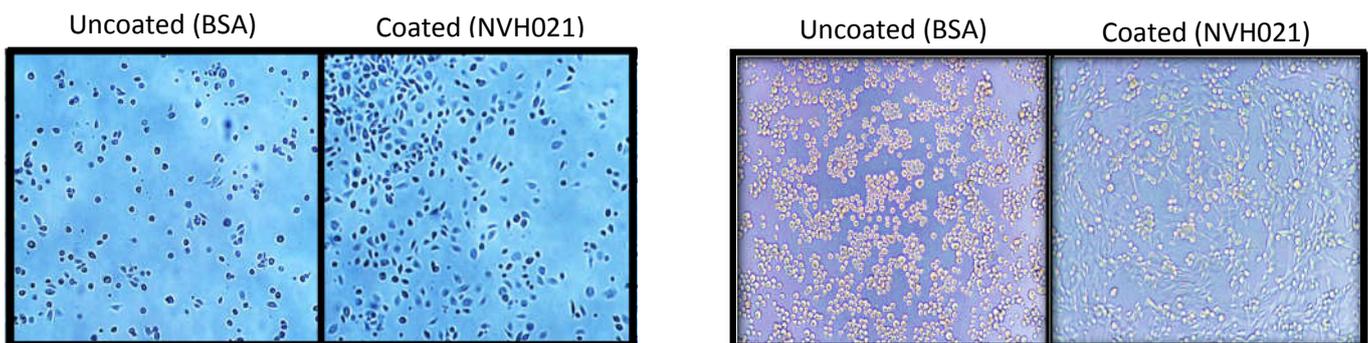
1. Dilute collagen solution at 1 µg/mL final concentration. Note that an optimization for the desired collagen concentration might be required.
2. Fill the wells with an appropriate volume of diluted collagen solution. Ensure that the entire surface is coated.
3. Incubate overnight at 4°C or at room temperature.
4. Carefully aspirate remaining solution and rinse with proper volume of serum-free media or buffer.

Ordering Information:

Cat. N°	Description	Prize HT
NVH021-2ML	Collagen like protein	265 €

Other packaging possible on request

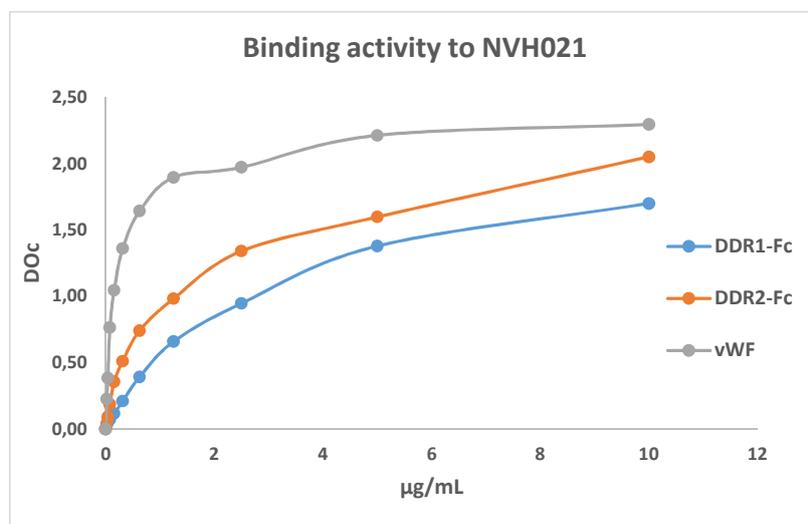
Test Results :



A : human primary keratinocytes

B : human primary fibroblasts

3h cells attached onto BSA 3% coated or NVH021 coated (1 µg/mL) well



Solid-phase binding assay of recombinant DDR1-Fc (R&D systems) DDR2-Fc (R&D systems) and vWF (Wilfactin) to NVH021 (1 µg/mL)