How do Basement Membrane Matrices Stack Up?

Corning® Matrigel® Matrix | Generic Matrices

Having the right surface for your research sets you up for success – right from the start.

When selecting a basement membrane, a key surface reagent used in many cell-based applications for both *in vitro* and *in vivo* environments, it is important to consider all the criteria that can affect your results.

Comparison Methodology

Like any good research study, you have to compare apples to apples. The Lowry method was used in the side-by-side comparison of Matrigel matrix and generic basement membranes (BME) below.

Folin-Lowry Assay

Assay method is an important factor when looking at the protein concentration of basement membrane extract (BME) products. For over 25 years, Corning has used the Folin-Lowry assay as the gold-standard in determining Corning Matrigel Matrix protein content.

Bicinchononic Acid (BCA) Assay

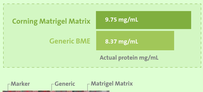
Generic brands use the Bicinchononic Acid (BCA) assay method, which results in a different read-out of protein concentration. BCA methods tend to over-estimate the amount of protein present in BME compared to Folin-Lowry assay methods.

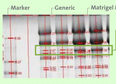
PROTEIN CONCENTRATION

Corning Matrigel Matrix

Matrigel matrix exhibited 10% to 15% higher protein concentration over generic basement membranes.[1,2]

10-15%





- Electrophoresis banding patterns indicate that Matrigel matrix has higher entactin content (130kD), a critical bridging molecule.[2]

Advantage: Corning Matrigel matrix

Generic BME

When randomized lots of BME were profiled using the Lowry method, generic products exhibited 47% lower protein concentration compared to what is reported on the CoA.[2]

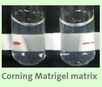
47%

Generic

Although generic BME suppliers may claim a higher protein concentration, in reality Matrigel matrix has a higher level of functional protein across multiple lots.

PRODUCT CLARITY

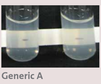
Thawed phenol red-free formulations of BME show a CLEAR difference in product clarity.



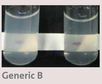
Corning Matrigel matrix

Advantage Corning Matrigel matrix

Did you know?
That greater product clarity is an indication of lower insoluble protein content, which translates to a more functional membrane matrix.



Generic A



Generic B

Generic BMEs have higher insoluble proteins, which are non-functional and contribute to reported protein concentration. This property may result in a less effective matrix.

Generic

PACKAGING

Corning® Matrigel® Matrix

Corning® Matrigel®matrix is packaged in clear, inert Type I borosilicate glass to maintain product integrity.

Advantage: Corning Matrigel matrix

Generic Brand

Generic products are packaged in plastic, which may allow leachables or extractables into the BME, potentially impacting product or cell culture performance.

Generic

EXPERIENCE AND QUALITY

Triple in-process and end-process testing for LDEV/LDHV (Lactose Dehydrogenase Elevating Virus)

#1 Referenced Extracellular Matrix for:

- Stem cell biology
- Cancer research
- Organoid culture
- 3D cell culture

Referenced in **9000+** Publications and approximately **700** in 2013 alone and over **670** in 2014

Corning has over **25** years of manufacturing and research experience

Advantage: Corning Matrigel matrix

Generic basement membrane providers only perform a final product PCR test, **increasing the chances of false negative results and potential viral contamination.**

< Less than 30 combined references across generic brands.[3]

Generic

The Results: The Original is Best.

Choose Corning® Matrigel® matrix. The original, proven extracellular matrix for advanced cell culture applications.

- Higher average protein concentration
- Lower insoluble protein content
- Maximum product integrity
- Most widely used and referenced

Order Corning Matrigel matrix and other cell culture products online at **www.corning.com/matrigel** or by calling **1.800.492.1110.**

Footnotes:
1. When using the same assay procedure.
2. Based on Corning internal multi-lot benchmarking study.
3. Data from PubMed with a search for branded BME, April 2015, http://www.ncbi.nlm.nih.gov/pubmed.

CORNING