



Stable Isotope Cell Growth Media

Structural studies on proteins using nuclear magnetic resonance (NMR) require labelling of these molecules with stable isotopes. Organisms such as bacteria and yeast are used to express the proteins. Silantes offers a wide range of stable isotope-labelled cell growth media to express stable isotope-labelled proteins.

Available in Multiple Variations, Tailored to Your Needs

Depending on your application and purpose, we offer three different media variations for the expression of stable isotope-labelled proteins: (Please see next page for a more detailed description)

- The High Performance OD2 Rich Growth Media solution,
- The SILEX Powder Media and
- The ECO Powder Media.

All three variations are available optimized for the growth of *E.coli* or yeast in standard pack sizes (100 mL, 200 mL, 500 mL, 1 L for media solution, 1 g, 10 g, 100 g for powder media) or in bulk sizes.

High Standards in Quality Control

The media are available in all combinations of the isotopic labels ^2H , ^{13}C , ^{15}N with an isotopic enrichment of > 98 %. This isotopic enrichment is validated by mass spectrometry. Biological competence is validated in growth tests. The results of the quality control tests are included in each delivery.

No Additional ^{13}C -Glucose Needed

All Silantes cell growth media are prepared from uniformly labelled bacterial cell hydrolysate of *Ralstonia eutropha*. If the media are used as stand-alone media, no additional ^{13}C -glucose is needed in order to express ^{13}C -labelled proteins.

Request for a free Media sample at sales@silantes.com!

Silantes also offers stable isotope labelled reagents for M9 media such as ^{13}C -glucose, D_2O and $^{15}\text{NH}_4\text{Cl}$.

Have a look at the currently available Silantes products and services at www.silantes-shop.com.



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High Performance OD2 Rich Growth Media

The Silantes OD2 medium is a ready-to-use rich growth medium solution for high-performance expression of stable isotope labelled proteins. The media are optimized for cell growth and expression of homologous and heterologous proteins.

Our OD2 media are made from labelled bacterial hydrolysate and contain primarily amino acids, some low molecular weight oligopeptides and almost no carbohydrates. The bacterial strain used is a chemolithoautotrophic organism grown on isotopically labelled inorganic substrates.

SILEX Powder Media

The SILEX powder is a lyophilizate of the High Performance OD2 Rich Growth Media. It can be used as a rich growth stand-alone medium (using 10 g powder per L) or as a supplement for M9 fermentations (using 1 g powder per L). Using SILEX powder as a supplement for M9 increases both cell growth and protein expression rates. See results in our SILEX powder media information leaflet.



ECO Powder Media

Silantes ECO powder media are a more economical alternative to SILEX powder media, adjusted to ensure the same performance as SILEX powder. It contains the same ingredients as the SILEX powder while having a slightly higher amount of low molecular weight oligopeptides.