

COENZYMES, ENZYMES AND SUBSTRATES

Meridian Life Science, Inc. (MLS) offers high quality coenzymes, enzymes and substrates for the manufacture of clinical diagnostic reagents and industrial applications. This comprehensive product line is based on expertise in fermentation and protein engineering utilizing *Escherichia coli* (*E. coli*), *Saccharomyces cerevisiae* (*S. cerevisiae*), *Leuconostoc mesenteroides* (*L. mesenteroides*) and *Clostridium kluyveri* (*C. kluyveri*).

E. coli and *S. cerevisiae* have been used in the large scale manufacture of many of the recombinant antigens now available at MLS. *E. coli* is considered a versatile host for the production of heterologous proteins, proteins in industrial fermentation processes and for the production of recombinant proteins. *S. cerevisiae* has developed as a model organism for several reasons: it is a single celled organism that is small with a short generation time, can be easily cultured, can be transformed by allowing for the addition of new genes or deletion through homologous recombination, and it has an established use in industry.

L. mesenteroides is a gram positive anaerobe and has been used for the commercial production of dextrans and levans for the biochemical and pharmaceutical industry for over 50 years. Glucose and other hexose sugars are converted via a combination of the hexose monophosphate and pentose phosphate pathways. *C. kluyveri* is a Gram-positive, spore-forming bacterium. It has been used as a source of enzymes for analytical purposes and for stereospecific hydrogenation reactions.

COENZYMES: CATALOG # PRODUCT

A01330Y	CoA (free acid)
A01328Y	CoA - Li
A01329Y	β -NADH
A01326Y	β -NADP
A01325Y	β -NADPH
A01324Y	β -NADP-K

SUBSTRATES: CATALOG # PRODUCT

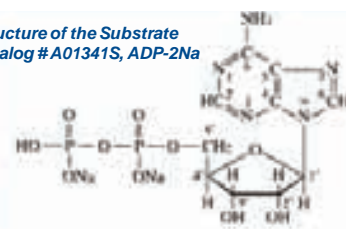
A01344S	G6P-2Na
A01341S	ADP-2Na
A01345S	ADP-K
A01342Y	AMP (free acid) Yeast
A01357S	AMP-2Na
A01343Y	AMP-Na

IN ADDITION TO PROVIDING RECOMBINANT PROTEINS, MLS OFFERS ENZYMES, COENZYMES AND SUBSTRATES FOR:

Clinical Chemistry Reagents

These stable reagents and raw materials serve a wide range of chemistry analyzers, controls and calibrators.

Structure of the Substrate
Catalog # A01341S, ADP-2Na



Immunochemistry Reagents

Suited for Immunochemistry needs and complimenting our portfolio of antibodies and antigens, MLS now provides enzymes for conjugation, immunofluorescence and ELISA.

Biocatalysis

MLS is able to provide products for the growing field of biocatalysis (chemical synthesis) including NAD(P) dependent recombinant enzymes such as:

- Recombinant G6PDH (rG-6-PDH)
- Recombinant MDH (rMDH)

Life Science Research

In addition to the areas listed above, we provide high quality products for histochemistry, bio-engineering, neuroscience, toxicology, bone metabolism and cancer research.

Cell Culture

Derived from yeast and microbial fermentation, MLS provides a variety of nutritional products for fermentation and cell culture.

ENZYMES: CATALOG # PRODUCT

A01334Y	CPase (Yeast)
A01336Y	Enolase
A01338Y	HK (yeast) Grade S
A01350C	LDH-CH
A01339B	rMDH
A01333C	ALP, >2,500IU/mg
A01335Y	Diaphorase
A01340Y	rICDH (NADP) (Yeast)
A01337Y	HK (yeast) Grade I
A01332Y	6-PGDH
A01353B	rG-6-PDH