

PRODUCT DATA SHEET

Bacterial Acid Methyl Esters CP Mixture

Catalog No: 1114

Solvent: Methyl hexanoate (caproate)

Storage: -20°C

Components:

Methyl undecanoate (hendecanoate), C11:0	Methyl hexadecenoate (<i>cis</i> -9) (palmitoleate), C16:1
Methyl 2-hydroxydecanoate, 2-OH C10:0	Methyl hexadecanoate (palmitate), C16:0
Methyl dodecanoate (laurate), C12:0	Methyl 15-methylhexadecanoate, iso-C17:0
Methyl tridecanoate, C13:0	Methyl <i>cis</i> -9,10-methylenehexadecanoate
Methyl 2-hydroxydodecanoate, 2-OH C12:0	Methyl heptadecanoate (margarate), C17:0
Methyl 3-hydroxydodecanoate, 3-OH C12:0	Methyl 2-hydroxyhexadecanoate, 2-OH C16:0
Methyl tetradecanoate (myristate), C14:0	Methyl octadecadienoate (all <i>cis</i> -9,12) (linoleate), C18:2
Methyl 13-methyltetradecanoate, iso-C15:0	Methyl octadecenoate (<i>cis</i> -9) (oleate), C18:1
Methyl 12-methyltetradecanoate, anteiso-C15:0	Methyl octadecenoate (<i>trans</i> -9) (elaidate), C18:1
Methyl pentadecanoate, C15:0	Methyl octadecanoate (stearate), C18:0
Methyl 2-hydroxytetradecanoate, 2-OH C14:0	Methyl <i>cis</i> -9,10-methyleneoctadecanoate
Methyl 3-hydroxytetradecanoate, 3-OH C14:0	Methyl nonadecanoate, C19:0
Methyl 14-methylpentadecanoate, iso-C16:0	Methyl eicosanoate (arachidate), C20:0

Application notes:

This methyl ester mixture contains 26 naturally occurring fatty acid methyl esters that are for the quantitative identification of unknowns. The mixture is prepared from high purity stock material and contains saturated and unsaturated fatty acid methyl esters. Knowledge of the fatty acid content of bacteria can be of great benefit in understanding microbials and can be of great nutritional importance in animals.¹ Understanding the role of enzymes and regulatory pathways in human pathogens is important in drug development.² Microbial fatty acid profiles are unique from one species to another and can therefore be used in the determination of bacterial identity.³

Selected References:

1. M. M. Or-Rashid, N. E. Odongo and B. W. McBride, "Fatty acid composition of ruminal bacteria and protozoa, with emphasis on conjugated linoleic acid, vaccenic acid, and odd-chain and branched-chain fatty acids" *Journal of Animal Science* (2007) 85:1228
2. Yong-Mei Zhang, Stephen W. White, and Charles O. Rock "Inhibiting Bacterial Fatty Acid Synthesis" *The Journal of Biological Chemistry* (2006) June, Vol. 281(26):17541
3. N. Rozès, Sandrine Garbay, Muriel Denayrolles, Aline Lonvaud-Funel "A rapid method for the determination of bacterial fatty acid composition" *Applied Microbiology* (1993) March, Vol. 3(17):126

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