



Mevalonate Pathway

Service Code: Mev

Summary: Profile 13 Mevalonate Pathway metabolites by LLE of blood plasma, serum, or tissue samples. Mevalonate metabolites chromatographically by Hilic on a 150x1mm Luna NH2 column. All analytes and Internal Standards are measured on a UHPLC-QQQ mass spectrometer using MRM methods and reported as total uM (biofluids) or pM/mg (tissues--normalized to wet tissue weight). CV's are generally 10%.

Container: cryovial

Normal Volume: 500 uL

Minimal Volume: 50uL

Special Handling: If human or primate, note any known presence of infectious agents

Sample Collection: : Please see our detailed sample collection protocol on the Michigan Regional Comprehensive Metabolomics Resource Core (MRC²) website before preparing samples for analysis or contact the core director at the number below for details.

Table I: Analytes reported. Others on special request:

Analyte	KEGG number	MRM (Qual)	Molecular Formula	LOQ
Acetyl-CoA	C00024	403.6->79	C ₂₃ H ₃₈ N ₇ O ₁₇ P ₃ S	0.5 µM
Acetoacetyl-CoA	C00332	424.6->382.4	C ₂₅ H ₄₀ N ₇ O ₁₈ P ₃ S	0.5 µM
HMG-CoA	C00356	454.7->382.4	C ₂₇ H ₄₄ N ₇ O ₂₀ P ₃ S	0.5 µM
Mevalonate	C00418	147.0->59	C ₆ H ₁₂ O ₄	0.5 µM
5-P-mevalonate	C01107	227.1->79	C ₆ H ₁₃ O ₇ P	0.5 µM
5-P-P-mevalonate	C01143	307.0->79	C ₆ H ₁₄ O ₁₀ P ₂	0.5 µM
Isopentenyl-P-P	C00129	245.0->79	C ₅ H ₁₂ O ₇ P ₂	0.5 µM
Dimethylallyl-P-P	C00235	245.0->79	C ₅ H ₁₂ O ₇ P ₂	0.5 µM
Geranyl-P-P	C00341	313.1->79	C ₁₀ H ₂₀ O ₇ P ₂	0.5 µM
(E,E)-Farnesyl-P-P	C00448	381.1->79	C ₁₅ H ₂₈ O ₇ P ₂	0.5 µM
Geranylgeranyl-P-P	C00353	449.2->79	C ₁₀ H ₂₀ O ₇ P ₂	0.5 µM
Thiamine monophosphate		343.1->97; 379->97 (Cl adduct)	C ₁₂ H ₁₈ N ₄ O ₄ PS ⁺	0.5 µM
Thamine pyrophosphate		423.1->79; 459->79 (Cl adduct)	C ₁₂ H ₁₉ N ₄ O ₇ P ₂ S ⁺	0.5 µM