

Amplicon Diversity Assay List

Bacteria Assays

16S

27F AGAGTTTGATCCTGGCTCAG

338R GCTGCCTCCCGTAGGAGT

27-YMF AGAGTTTGATYMTGGCTCAG

533R TTACCGCGGCTGCTGGCAC

534R TYACCGCGGCTGCTGG

27mF AGRGTTYGATYMTGGCTCAG

28F-YM GAGTTTGATYMTGGCTCAG

These primers
are mixed at a
4:1:1:1 ratio
(28F-YM is at
4 parts)

28F-Borrellia GAGTTTGATCCTGGCTTAG

28F-Chloroflex GAATTTGATCTTGGTTCAG

28F-Bifdo GGGTTCGATTCTGGCTCAG

28F GAGTTTGATCNTGGCTCAG

519R GTNTTACNGCGGCKGCTG

388R TGCTGCCTCCCGTAGGAGT

63F CAGGCCTAACACATGCAAGTC

530aR GTATTACCGCGGCTGCTG

104F GGCGVACGGGTGAGTAA

530R CCGCNGCNGCTGGCAC

338F TCCTACGGGAGGCAGCAGT

797R GGACTACCAGGGTATCTAATCCTGTT

338aF ACTCCTACGGGAGGCAGCAG

518R ATTACCGCGGCTGCTGG

338bF ACWCCTACGGGWGGCWGC

Firm350F GGCAGCAGTRGGGAATCTTC

Firm814R ACACYTAGYACTCATCGTTT

Cyan359F GGGGAATYTTCCGCAATGGG

Cyan781R GACTACWGGGGTATCTAATCCCWTT

AMX368F TTCGCAATGCCCGAAAGG

AMX821R AAAACCCCTCTACTTAGTGCCC

*341F = 357F

** Bacterial & Archaeal "universal"

*** Bacterial & Archaeal & Eukaryotic "universal"

Bold are from Earth Microbiome Project
Italicized are default primers for RTLGenomics

357F CCTACGGGAGGCAGCAG *

357wF CCTACGGGNGGCWGCAG

515F GTGCCAGCMGCCGCGGTAA

515yF GTGYCAGCMGCCGCGGTAA

515wF GTGYCAGCMGCCGCGGTA

530F GTGCCAGCMGCNGCGG

926wF AACTYAAAKGAATTGRCGG

939F TTGACGGGGGCCCGCACAAG

23S

AlgaeF GGACAGAAAGACCCTATGAA

907R CCGTCAATTCMTTGTAGTTT

926wR CCGTCAATTYMTTTRAGTTT

785R GACTACHVGGGTATCTAATCC

806R GGACTACHVGGGTWTCTAAT**

806bR GGACTACNVGGGTWTCTAAT

909R CCCCGYCAATTCMTTTRAGT

926R CCGTCAATTCMTTTRAGTTT

926pfR CCGYCAATTYMTTTRAGTTT

1392R ACGGGCGGTGTGTRC***

1492R TACCTTGTTACGACTT

AlgaeR TCAGCCTGTTATCCCTAGAG

If you don't see a particular assay desired we may have it, and if we don't then it can easily be ordered. Please inquire if this is the case and we will be happy to assist you.

Archaea Assays

16S

Arch21F TCCGGTTGATCCYGCCGG

Arch340wR CTGWTGCRCCCCRTAGGG

Arch534R ATTACCGCGGCTGCTGG

Arch340wF CCCTAYGGGGYGCASCAG

Arch806R GGACTACVSGGGTATCTAAT

Arch958R YCCGGCGTTGAMTCCAATT

Arch517F GCYTAAAGSRNCCGTAGC

Arch909R TTTCAGYCTTGCGRCCGTAC

Arch519wF CAGCMGCCGCGGTAA

Arch1017R GGCCATGCACCWCCTCTC

Eukaryote/Fungi Assays

18S

Euk1AF CTGGTTGATCCTGCCAG

Euk516R ACCAGATTGCCCTCC

EukA7F AACCTGGTTGATCCTGCCAGT

Euk570R GCTATTGGAGCTGGAATTAC

Euk300F AGGGTTCGATTCCGGAG

Euk555R GCTGCTGGCACCAGACT

Euk515F GTGYCAGCMGCCGCGGTA

EukNSR951R TTGGYRAATGCTTTCGC

Euk1052R TGCATGGYYGYCGYAGYTC

Euk516F GGAGGGCAAGTCTGGT

Euk1055R CGGCCATGCACCACC

Euk1560F TGGTGCATGGCCGTTCTTAGT

Euk2035R CATCTAAGGGCATCACAGACC

Euk1391F GTACACACCGCCCGTC

EukBR TGATCCTTCTGCAGGTTACCTAC

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TAReukF CCAGCASCYGCGGTAATTCC

TAReukR ACTTTCGTTCTTGATYRA

EukBaIR ACTTTCGTTCTTGATYRR

EukSto2R ACTTTCGTTCTTGAT

TAReukR3mR ACTTTCGTTCTTGATYRATGA

ITS

ITS1F CTTGGTCATTTAGAGGAAGTAA

ITS2aR GCTGCGTTCTTCATCGATGC

ITS3F GCATCGATGAAGAACGCAGC

ITS4R TCCTCCGCTTATTGATATGC

ITS9F GAACGCAGCRAAIIGYGA

23S

AlgaeF GGACAGAAAGACCCTATGAA

AlgaeR TCAGCCTGTTATCCCTAGAG

Arthropod COI

mICOLintF GGWACWGGWTGAACWGTWTAYCCYCC

HCO2198R TAAACTTCAGGGTGACCAAAAATCA

Plant trnL

trnLcF CGAAATCGGTAGACGCTACG

trnLdR GGGGATAGAGGGACTTGAAC

trnLgF GGGCAATCCTGAGCCAA

trnLhR CGCGCATGGTGGATTACAATCC

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Functional Assays

amoA

Bac-amoAF GGGGTTTCTACTGGTGGT

Bac-amoAR CCCCTCKGSAAAGCCTTCTTC

Arch-amoAF STAATGGTCTGGCTTAGACG

Arch-amoAR GCGGCCATCCATCTGTATGT

aps

APS1F TGGCAGATCATGATY MAYGG

APS4R GCGCCAACYGGRCRCA

ARSR GGGCCGTAACCGTCCTTGAA

mcrA

mlasF GGTGGTGTMGDDTTCACMCARTA

mcrA-revR CGTTCATBGCCTAGTTVGGRTAGT

mcrA3F GGTGGTGTMGGATTCACACARTAYGCWACAGC

mcrA3R TTCATTGCRTAGTTWGGRTAGTT

nifH

mnifHF TGYGAYCCNAARGCNGA

mnifHR ADNGCCATCATYTCNCC

nifHF GGCAAGTCCACCACCCAGC

nifH2R GACGATGTAGATYTCCTG

nifHR CTCGATGACCGTCATCCGGC

nifH_PoIF TCGAYCCSAARGCBGACTC

nifH_PoIR ATSGCCATCATYTCRCCGGA

nirK

F1aCuF ATCATGGTSCTGCCGCG

R3CuR GCCTCGATCAGRTTGTTGGTT

nirS

Cd3AF GTS AACGTS AAGGARACSGG

R3CdR GASTTCGGRTGSGTCTTGA

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nosZ

nosZF CGYTGTTTCMTGACAGCCAG

nosZR CGSACCTTSTTGCCRTYGGC

nrfA

nrfAF TTAGTCCAGTCAGAGAAAGC

nrfA7R TWNGGCATRTGTCARTC

pmoA

A189F GGNGACTGGGACTTCTGG

MB661R CCGGMGCAACGTCYTTACC

cmo182F TCACGTTGACGCCGATCC

cmo568R GCACATACTCCATCCCCATC

psaA

psaAF TTCCACTACCACAAGCGGGCTCC

psaAR CAGGCCACCCTTGAAGGTG

puf

pufMed TACGGSAACCTGTWCTAC

pufR AYNGCRAACCACCANGCCCA

Rubisco

cbblG1F GGCAACGTGTTCCGGSTTCAA

cbblG1R TTGATCTCTTTCCACGTT

cbblR1F AAGGAYGACGAGAACATC

cbblR1R TCGGTCGGSGTGTAGTTG

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