

# Anhang

## A) Oligonukleotide

<u>Primernamen</u>	<u>Sequenz</u>
NMB 0032-5:	g gcc <b>tcg agg</b> atg gaa atg aaa caa atg ctt
NMB 0032-3:	g gat <b>ggg ccc</b> tct gcc gtt gca ttt gat ttc
NMB 0039-5:	g gcc <b>tcg agg</b> atg cgt aaa acc ttc ctc ttc
NMB 0039-3:	g gat <b>ggg ccc</b> tcg gtt ttg aaa ctt tgg ttt
NMB 0040-5:	g gcc <b>tcg agg</b> atg caa gaa aac ccg acc gtg
NMB 0040-3:	g gat <b>ggg ccc</b> cgc atg gct ttt ctt tcg tat
NMB 0049-5:	g gcg <b>tcg acg</b> aac ttg gaa acg gca ggt ttt
NMB 0049-3:	g gat <b>ggg ccc</b> aga ctt cac gcc agc tga ttc
NMB 0053-5:	g gcc <b>tcg agg</b> atg acg gtg ttg caa gaa cgt
NMB 0053-3:	g gat <b>ggg ccc</b> cct ttt ccc gaa aat cgc gct
NMB 0065-5:	g gcc <b>tcg agg</b> atg cat caa tat tat gac gca
NMB 0065-3:	g gat <b>ggg ccc</b> agc gtc aga gca tgg ctt tat
NMB 0067-5:	g gcc <b>tcg agg</b> cta aag aaa ata aaa aaa gct
NMB 0067-3:	g gat <b>ggg ccc</b> ccc ttt cgc cag gca aaa aac
NMB 0098-5:	g gcc <b>tcg agg</b> aga gaa aaa aga aac aaa gaa
NMB 0098-3:	g gat <b>ggg ccc</b> acc taa att cag aat ttt atc
NMB 0127-5:	g gcc <b>tcg agg</b> gtg gca aag aaa att atc ggc
NMB 0127-3:	g gat <b>ggg ccc</b> tac aac acc ctc cac atc caa
NMB 0182-5:	g gcc <b>tcg agg</b> atg aaa ctg aaa cag att gct
NMB 0182-3:	g gat <b>ggg ccc</b> ttg gaa ttg gaa gcg ttg gat
NMB 0193-5:	g gcc <b>tcg agg</b> atg acc cac atg att tac ccc
NMB 0193-3:	g gat <b>ggg ccc</b> ttt cgc gtc ttt aaa ccc gcg
NMB 0218-5:	g gcc <b>tcg agg</b> atg aaa atc gtt ttt atc aca
NMB 0218-3:	g gat <b>ggg ccc</b> ctt caa aat atc gag caa ttt
NMB 0270-5:	g gcc <b>tcg agg</b> atg cct gat gcc gtc aaa aaa
NMB 0270-3:	g gat <b>ggg ccc</b> tct caa acc ccc ttc aac aaa
NMB 0300-5:	g gcc <b>tcg agg</b> atg ccg tct gaa cat gcg ttc
NMB 0300-3:	g gat <b>ggg ccc</b> cgg cac acc gct aat ctg tac
NMB 0312-5:	g gcc <b>tcg agg</b> ggt tcg gat gcg tac gat ccc
NMB 0312-3:	g gat <b>ggg ccc</b> cca ttt gag cga caa tgc ccg
NMB 0341-5:	g gcc <b>tcg agg</b> atg ccc gcc ggc cga ctg ccc
NMB 0341-3:	g gat <b>ggg ccc</b> acc caa ttc ctg cgc caa tgc
NMB 0368-5:	g gcc <b>tcg agg</b> atg gtc gac gcg gtc gtt aaa
NMB 0368-3:	g gat <b>ggg ccc</b> ttc atc gta gta agg ttc tgt

NMB 0377-5: g gcc **tcg agg** atg gcg ttt tgc acc agt ttg  
NMB 0377-3: g gat **ggg ccc** ata tcc cgc gcc cag aat aca

NMB 0385-5: g gcc **tcg agg** atg aaa gaa ttt gac ttc atc  
NMB 0385-3: g gat **ggg ccc** aaa atg atc gaa tcc taa aga

NMB 0415-5: g gcc **tcg agg** cag ttt gga aat att gtg tat  
NMB 0415-3: g gat **ggg ccc** ttt aga cgt att ttt agt cga

NMB 0432-5: g gcc **tcg agg** atg gaa gat tta tat ata ata  
NMB 0432-3: g gat **ggg ccc** aaa cat cga aac aat cat ctg

NMB 0442-5: g gcc **tcg agg** gaa tcc agc ccc caa aaa acc  
NMB 0442-3: g gat **ggg ccc** gaa gcg gta gcg cat gcc caa

NMB 0456-5: g gcc **tcg agg** atg atc aaa ctg aca cga aga  
NMB 0456-3: g gat **ggg ccc** ccg ctt caa tac gga tgt att

NMB 0471-5: g gcg **tcg acg** atg att tgc cga aaa cct atc  
NMB 0471-3: g gat **ggg ccc** att acc taa acg caa att tcc

NMB 0486-5: g gcc **tcg agg** cag ggg ggg aca gaa acc gaa  
NMB 0486-3: g gat **ggg ccc** agc cca tga aat cgg tag tct

NMB 0488-5: g gcc **tcg agg** atg act ttc aat caa gaa caa  
NMB 0488-3: g gat **ggg ccc** tca atg cca act tta aac ctg

NMB 0593-5: g gcc **tcg agg** atg tcg gca caa acc gat ccg  
NMB 0593-3: g gat **ggg ccc** ggt tat ttt gtg gtc ggt gcg

NMB 0623-5: g gcc **tcg agg** atg aaa aaa aca ctg gtg gcg  
NMB 0623-3: g gat **ggg ccc** ttt gcc cgc ttt gag ccc ttg

NMB 0624-5: g gcc **tcg agg** ata aaa tat caa aca gca aac  
NMB 0624-3: g gat **ggg ccc** aat att ccc cct gat tgc ttt

NMB 0726-5: g gcc **tcg agg** atg aca act gcg cgc tgg gta  
NMB 0726-3: g gat **ggg ccc** act ata cgc ttc cat tgt ggt

NMB 0741-5: g gcc **tcg agg** atg cag tgc ctc cag ttc gac  
NMB 0741-3: g gat **ggg ccc** agg ggt tag atc ctt cct tct

NMB 0785-5: g gcc **tcg agg** atg tct gca agc atc caa gca  
NMB 0785-3: g gat **ggg ccc** ttt tat ctg ttc caa agc ggc

NMB 0831-5a: g gcc **tcg agg** atg gat atg caa aac aaa gcg  
NMB 0831-3a: g gat **ggg ccc** cag ctc tgt gaa ttt gtc aag  
NMB 0831-5b: g gcc **tcg agg** att tta aca atc aaa tcg ggg  
NMB 0831-3b: g gat **ggg ccc** agc ctt tgg gaa gct caa caa

NMB 0846-5: g gcc **tcg agg** atg gca cgg cat gta ttt ctt  
NMB 0846-3: g gat **ggg ccc** ttt gta ctg tct gcg gct tcg

NMB 0872-5: g gcc **tcg agg** atg tta cct aac cgt ttc aaa  
NMB 0872-3: g gat **ggg ccc** cgt ttc ccg cca tat ttt ctt

NMB 0884-5: g gcc **tcg agg** atg gaa cat aag ctg ccg caa  
NMB 0884-3: g gat **ggg ccc** gga caa ggc ggc aaa acg ttt

NMB 0892-5: g gcc **tcg agg** atg ctg att ggg ctg ctg cct  
NMB 0892-3: g gat **ggg ccc** cgt ttt ctt tga gct aag gcg

NMB 0926-5: g gcc **tcg agg** gaa tcc agc ccc caa aaa acc  
NMB 0926-3: g gat **ggg ccc** gaa gcg gta gcg cat gcc caa

NMB 0955-5: g gcc **tcg agg** atg atg gac gaa aaa ctc aat  
NMB 0955-3: g gat **ggg ccc** agc gtc ttc aac caa ttg ttt

NMB 0961-5: g gcc **tcg agg** atg aaa ccg tta aaa aca tta  
NMB 0961-3: g gat **ggg ccc** ctg ttt gtt ctt aaa tgg agt

NMB 0970-5: g gcc **tcg agg** cag ggg ggg aca gaa acc gaa  
NMB 0970-3: g gat **ggg ccc** agc cca tga aat cgg tag tct

NMB 0983-5: g gcc **tcg agg** atg tct tcc atc aaa cgc gcc  
NMB 0983-3: g gat **ggg ccc** atg gcg gaa atg gcg gat gcc

NMB 1001-5: g gcc **tcg agg** atg ggg aaa ccg ggg aag tca  
NMB 1001-3: g gat **ggg ccc** att gca agt gtt ttg ggc ggc

NMB 1030-5: g gcc **tcg agg** atg aaa aaa atc atc ttc gcc  
NMB 1030-3: g gat **ggg ccc** ttg ttt ggc tgc ctc gat ttg

NMB 1032-5: g gcg **tcg acg** aac ttg gaa acg gca ggt ttt  
NMB 1032-3: g gat **ggg ccc** gta gaa gac ttc acg cca gct

NMB 1053-5: g gcc **tcg agg** atg aaa aaa aca gtt ttt aca  
NMB 1053-3: g gat **ggg ccc** tat tca cga ata ctg gtt ttc

NMB 1080-5: g gcc **tcg agg** gaa aaa aag caa gaa agc atg  
NMB 1080-3: g gat **ggg ccc** tct att tat aga tct tgg gaa

NMB 1094-5: g gcc **tcg agg** gtg gac ggc ttc gat gcg tcg  
NMB 1094-3: g gat **ggg ccc** cgg ctc cat tta ctt ttt atc

NMB 1140-5: g gcc **tcg agg** tgc ttg aag gat tgt ttt cct  
NMB 1140-3: g gat **ggg ccc** aaa taa aat ggg aaa gtc agg

NMB 1200-5: g gcg **tcg acg** atg aat aaa aat att aaa tct  
NMB 1200-3: c agc **ggc cgc** tga ttt gcc ttt ccg ttt ttt

NMB 1202-5: g gcc **tcg agg** atg aat att att atg gac tca  
NMB 1202-3: g gat **ggg ccc** tag att caa ttg aaa aat aac

NMB 1223-5: g gcc **tcg agg** ggc aat caa aaa aaa atc agc  
NMB 1223-3: g gat **ggg ccc** acg cgg ttg cca cat ctt ttt

NMB 1255-5: g gcc **tcg agg** tct ttt tgg aca gcg acg att  
NMB 1255-3: g gat **ggg ccc** aaa ttt ctg ata aac ggc ctt

NMB 1261-5a: g gcc **tcg agg** gct gcc aac cca acc caa ccc  
NMB 1261-3a: g gat **ggg ccc** ggg cgg gtc gat gta aat cat

NMB 1261-5b: g gcc **tcg agg** aac acc gga tca gac ggc ttt  
NMB 1261-3b: g gat **ggg ccc** cct gat aac cac att caa ctc

NMB 1265-5: g gcc **tcg agg** atg aaa ccg tct ctt ttg ttg  
NMB 1265-3: g gat **ggg ccc** taa tgc gac agc ctc agt caa

NMB 1275-5a: g gcc **tcg agg** gaa ccc caa aca cct cat cgc  
NMB 1275-3a: g gat **ggg ccc** ttg tgc cgg acg gcc gcc atg  
NMB 1275-5b: g gcc **tcg agg** aag cct cac cag cag gaa caa  
NMB 1275-3b: g gat **ggg ccc** gaa aac aat atg ccg tct gaa

NMB 1277-5: g gcc **tcg agg** ttg tcc ctg tct gaa ttt ata  
NMB 1277-3: g gat **ggg ccc** cat cca aca aca tca aat aac

NMB 1350-5: g gcc **tcg agg** atg aag aat aat gtt aaa aat  
NMB 1350-3: g gat **ggg ccc** aat gtt ttt ctg ttt gcc gat

NMB 1375-5: g gcc **tcg agg** atg gcg gac aaa gca ccg agg  
NMB 1375-3: g gat **ggg ccc** ttc gcc atc ttt ttt ctc cgc

NMB 1377-5: g gcc **tcg agg** atg aaa cgt gat ttg agc aaa  
NMB 1377-3: g gat **ggg ccc** cca atc ttt gcc tct caa aat

NMB 1379-5: g gcc **tcg agg** atg acc gtc aaa acc ccc gtt  
NMB 1379-3: g gat **ggg ccc** atg cgc tgc cca ttc aat cga

NMB 1429-5: g gcc **tcg agg** atg cga aaa aaa ctt acc gcc  
NMB 1429-3: g gat **ggg ccc** gaa ttt gtg gcg caa acc gac

NMB 1443-5: g gcc **tcg agg** atg gcc tat caa gtt ctc gcc  
NMB 1443-3: g gat **ggg ccc** tgg ccg gtt tgc cgc caa ttc

NMB 1465-5: g gcc **tcg agg** gaa tcc agc ccc caa aaa acc  
NMB 1465-3: g gat **ggg ccc** gaa gtg gta gcg cat gcc caa

NMB 1467-5: g gcc **tcg agg** atg acc acc acc ccc gca aac  
NMB 1467-3: g gat **ggg ccc** gac ggc ctc gac ttt gaa cgg

NMB 1489-5: g gcc **tcg agg** atg att ttt aaa cag aat caa  
NMB 1489-3: g gat **ggg ccc** gtg gct caa tgc caa ctt taa

NMB 1507-5: g gcc **tcg agg** atg cga aac aaa caa acg cca  
NMB 1507-3: g gat **ggg ccc** caa cac ata ggg cgg tgc ttt

NMB 1525-5: g gcc **tcg agg** atg aaa ctc gaa gca agc aag  
NMB 1525-3: g gat **ggg ccc** cgt cca ctg taa att caa cgc

NMB 1540-5: g gcc **tcg agg** atg aat aag aaa cac ggt ttt  
NMB 1540-3: g gat **ggg ccc** aaa ctt cat ttc gag cgc gag

NMB 1543-5: g gcc **tcg agg** atg agt gaa gtt gaa tat ttc  
NMB 1543-3: g gat **ggg ccc** atc ata atc tac att ttg atg

NMB 1626-5: g gcc **tcg agg** atg gca gag atc tgt ttg ata  
NMB 1626-3: g gat **ggg ccc** ttt tcc gcc caa tgt ggc aac

NMB 1634-5: g gcc **tcg agg** atg agt gaa gca gaa tat ttt  
NMB 1634-3: g gat **ggg ccc** att ttg att tgc atg aag atc

NMB 1636-5: g gcc **tcg agg** atc cag ccc cca aaa aac ctt  
NMB 1636-3: g gat **ggg ccc** gaa gtg gta gcg cat gcc caa

NMB 1668-5: g gcc **tcg agg** atg aaa cca tta caa atg ctc  
NMB 1668-3: g gat **ggg ccc** aaa ctt cca ttc cag cga tac

NMB 1723-5: g gcc **tcg agg** atg aac aca aca tcc caa ttt  
NMB 1723-3: g gat **ggg ccc** ttt ggc agc agg tgc agc ttt

NMB 1734-5: g gcc **tcg agg** atg aaa ctg tat att tac gac  
NMB 1734-3: g gat **ggg ccc** caa tgc cct gtc aaa ata aag

NMB 1741-5: g gcc **tcg agg** cag ggg ggg aca gaa acc gaa  
NMB 1741-3: g gat **ggg ccc** agc cca tga aat cgg tag tct

NMB 1760-5: g gcc **tcg agg** gtg gaa acc act ttt gct ctg  
NMB 1760-3: g gat **ggg ccc** tat tgg gtt ttt gcg ttt cca

NMB 1783-5a: g gcc **tcg agg** atg aat aga ccc aag caa ccc  
NMB 1783-3a: g gat **ggg ccc** gag gct ggc caa tgt cag att  
NMB 1783-5b: g gcc **tcg agg** aag cgg cat gag aca gaa caa  
NMB 1783-3b: g gat **ggg ccc** ccg ttt ctc gtg tag gat gtc

NMB 1786-5: g gcc **tcg agg** atg agc atc cat ctc gac ttc  
NMB 1786-3: g gat **ggg ccc** ctg ata aat caa ctt cct aac

NMB 1824-5: g gcc **tcg agg** atg ata gac ctg cac tgc cat  
NMB 1824-3: g gat **ggg ccc** tcg gga aaa atg ttc cca aac

NMB 1836-5: g gcg **tcg acg** atg agc caa gcc tta ccc tac  
NMB 1836-3: c agc **ggc cgc** atg gtt atg gcg cgt atc gag

NMB 1846-5: g gcc **tcg agg** atg aac ata caa aac atc cgc  
NMB 1846-3: g gat **ggg ccc** ttc gac gac gat ttt ggg gaa

NMB 1847-5: g gcc **tcg agg** tgt ttt ccc ata ccg gcg ggg  
NMB 1847-3: g gat **ggg ccc** gac ttc acg cca gct gat tcg

NMB 1877-5: g gcc **tcg agg** atg aaa tcc tac ccc gac ccc  
NMB 1877-3: g gat **ggg ccc** caa aaa cag caa gac gca ggc

NMB 1893-5: g gcc **tcg agg** gaa att tcc ttc ctt cct tcc  
NMB 1893-3: g gat **ggg ccc** acg ccg acg ttt ttt att aac

NMB 1900-5: g gcc **tcg agg** atg ccg tct gaa acc ggc gca  
NMB 1900-3: g gat **ggg ccc** gcc tcc gag cag tgt cca caa

NMB 1913-5: g gcc **tcg agg** atg att aca ttg gcc gta gat  
NMB 1913-3: g gat **ggg ccc** acc gcc gac att ttc gtt ttg

NMB 1929-5: g gcc **tcg agg** atg ccg tct gaa gcc ttc aga  
NMB 1929-3: g gat **ggg ccc** acg gtt ttt cag caa tcg gtg

NMB 1931-5: g gcc **tcg agg** atg cct gtc tat ttc cgc acc  
NMB 1931-3: g gat **ggg ccc** acc agc ggg gtg gcg tac aaa

NMB 1969-5: g gcc **tcg agg** atg cga acg acc cca acc ttc  
NMB 1969-3: g gat **ggg ccc** gaa ccg gta gcc tac gcc gac

NMB 1985-5: g gcc **tcg agg** atg aaa aca acc gac aaa cgg  
NMB 1985-3: g gat **ggg ccc** cca gcg gta gcc taa ttt gat

NMB 1988-5: g gcc **tcg agg** atg aat acc cca ttg ttc cgt  
NMB 1988-3: g gat **ggg ccc** gaa ctt gta gtt cac gcc caa

NMB 1994-5: g gcc **tcg agg** atg agc atg aaa cac ttt cca  
NMB 1994-3: g gat **ggg ccc** ctc gta att gac gcc gac atg

NMB 1998-5: g gcc **tcg agg** atg cgc ttc aca cac acc acc  
NMB 1998-3: g gat **ggg ccc** gcc tat ttt gat tcc tgc ctg

NMB 2008-5: g gcc **tcg agg** atg gac gaa att caa ata ccc  
NMB 2008-3: g gat **ggg ccc** atc cag aat tgg aag ttt ctg

NMB 2032-5a: g gcc **tcg agg** atg aag ctc aaa ata gac att  
NMB 2032-3a: g gat **ggg ccc** tgg tcg gca aag ccg tat ttg  
NMB 2032-5b: g gcc **tcg agg** tgc ggc gcg aac tgg tcg gac  
NMB 2032-3b: g gat **ggg ccc** ggc ggc aag cat ttc aag aat

NMB 2093-5: g gcc **tcg agg** atg aac ggc atc atc atc aaa  
NMB 2093-3: c agc **ggc cgc** gag gat ttc gta gcc ggt ttc

NMB 2104-5: g gcc **tcg agg** cgc tac tcc att gat gca ctg  
NMB 2104-3: g gat **ggg ccc** agg ttg tcc ttg tct atg ttg

NMB 2145-5: g gcc **tcg agg** atg aaa aaa tgc cgc gat atc  
NMB 2145-3: g gat **ggg ccc** ttt tga agt tct ggt tgt ttt

#### Primer für Verkürzungen:

NMB 0182-5: g gcc **tcg agg** atg aaa ctg aaa cag att gct  
NMB 0182-3-17: g gat **ggg ccc** cgt gat ttg gat att gag ttt

NMB 0182-5: g gcc **tcg agg** atg aaa ctg aaa cag att gct  
NMB 0182-3-27: g gat **ggg ccc** ttc gtt ggt ttg gat gtc ggt

NMB 0182-5-81: g gcc **tcg agg** atc aaa agc ctg tac gcc acc  
NMB 0182-3: g gat **ggg ccc** ttg gaa ttg gaa gcg ttg gat

NMB 0182-5-60: g gcc **tcg agg** gac aaa acc aag cag acc atc  
NMB 0182-3: g gat **ggg ccc** ttg gaa ttg gaa gcg ttg gat

NMB 1429-5: g gcc **tcg agg** atg cga aaa aaa ctt acc gcc  
NMB 1429-3-6: g gat **ggg ccc** ctg acc gct cgc tcc acc gtt

**NMB 1429-5:** g gcc **tcg agg** atg cga aaa aaa ctt acc gcc  
**NMB 1429-3-33:** g gat **ggg ccc** att ttc aga caa atc caa ctg

**NMB 1429-5-8:** g gcc **tcg agg** ggc gac aaa acc aaa aac agt  
**NMB 1429-3:** g gat **ggg ccc** gaa ttt gtg gcg caa acc gac

**NMB 1429-5-27:** g gcc **tcg agg** agc cgc atc agg acg aaa atc  
**NMB 1429-3:** g gat **ggg ccc** gaa ttt gtg gcg caa acc gac