

Clostridium botulinum strain CDC1882 Bont/A gene, complete cds

GenBank: EU416226.1

[FASTA Graphics](#)

[Go to:](#)

LOCUS EU416226 3891 bp DNA linear BCT 15-JUL-2008
DEFINITION Clostridium botulinum strain CDC1882 Bont/A gene, complete cds.
ACCESSION EU416226
VERSION EU416226.1
KEYWORDS .
SOURCE Clostridium botulinum
ORGANISM [Clostridium botulinum](#)
Bacteria; Firmicutes; Clostridia; Eubacteriales; Clostridiaceae;
Clostridium.
REFERENCE 1 (bases 1 to 3891)
AUTHORS Raphael,B.H., Luquez,C., McCroskey,L.M., Joseph,L.A.,
Jacobson,M.J., Johnson,E.A., Maslanka,S.E. and Andreadis,J.D.
TITLE Genetic homogeneity of Clostridium botulinum type A1 strains with
unique toxin gene clusters
JOURNAL Appl. Environ. Microbiol. 74 (14), 4390-4397 (2008)
PUBMED [18502928](#)
REFERENCE 2 (bases 1 to 3891)
AUTHORS Raphael,B.H., Luquez,C., McCroskey,L.M., Joseph,L.A.,
Jacobson,M.J., Johnson,E.A., Maslanka,S.E. and Andreadis,J.D.
TITLE Direct Submission
JOURNAL Submitted (18-JAN-2008) Enteric Diseases Laboratory Branch, Centers
for Disease Control and Prevention, Atlanta, GA 30333, USA
FEATURES Location/Qualifiers
source 1..3891
/organism="Clostridium botulinum"
/mol_type="genomic DNA"
/strain="CDC1882"
/db_xref="taxon:[1491](#)"
/note="type: A"
[CDS](#) 1..3891
/codon_start=1
/transl_table=[11](#)
/product="Bont/A"
/protein_id="[ABZ80564.1](#)"
/translation="MPFVNKQFNYKDPVNGVDIAYIKIPNVGQMOPVKAFKIHNKIWV
IPERDFTFTNPEEGDLNPPPEAKQVPVSYDSTYLSTDNEKDNYLKGVTKLFERIYSTD
LGRMLLTSIVRGIPFWGGSTIDTELKVIDTNCINVIQPDGSYRSEELNLVIIGPSADI
IQFECKSFGHEVLNLTRNGYGSTQYIRFSPDFTFGFEESLEVDTNPLLGAGKFATDPA
VTLAHELIHAGHRLYGIAINPNRVFKVNTNAYYEMSGLEVSFEELRTFGGHDAKFIDS
LQENEFRLYYNNKFKDIASTLNKAKSIVGTTASLQYMKNVFKEKYLLSEDTSKGKFSVD

KLKFDKLYKMLTEIYTEDNFVKFFKVLNRKTYLNFDKAVFKINIVPKVNYTIYDGFNL
RNTNLAANFNGQNTNINNMNFTKLKNFTGLFEFYKLLCVRGIITSKTKSLDKGYNKAL
NDLCIKVNNWDLFFSPSEDNFTNDLNKGEEITSNTNIEAAEENISLDLIQQYYLTFNF
DNEPENISIENLSSDIIGQLELMPNIEFPPNGKKYELDKYTMFHYLRAQEFEGHKSRI
ALTNSVNEALLNPSRVYTFSSDYVKKVNKATEAAMFLGWVEQLVYDFTDETSEVSTT
DKIADITIIIPYIGPALNIGNMLYKDDFVGALIFSGAVILLEFIPEIAIPVLGTFALV
SYIANKVLTVQITIDNALSKEKWEDEVYKYIVTNWLAKVNTQIDLRKKMKEALENQA
EATKAIINYQYNQYTEEEKNNINFNIDDLSSKLNESINKAMININKFLNQCSVSYLMN
SMIPYGVKRLDFDASLKDALLKYIYDNRGTLIGQVDRDKDKVNNNTLSTDIPQLSKY
VDNQRLSTFTTEYIKNIINTSILNLRYESNHLIDLRSYASKINIGSKVNFDPIDKNQI
QLFNLESSKIEVILKNAIVYNSMYENFSTSWIRIPKYFNSISLNNEYTIINCMENNS
GWKVSINYEI IWTLQDTQEIKQRVVFKYSQMINISDYINRWIFVTITNNRLNNSKIY
INGRLIDQKPISNLGNIHASNNIMFKLDGCRDTHRYIWIKYFNLFDEKELNEKEIKDLY
DNQNSGILKDFWGDYLYQYDKPYMLNLYDPNKYIDVNNVGIRGYMYLKGPRGNVMTT
NIYLNSSLYMGTKFIIKKYASGNKDNIVRNNDRVYINVVVKNKEYRLATNASQAGVEK
ILSALEIPDVGNLSQVVMKSKNDQGITNKCKMNLQDNNGNDIGFIGFHQFNNIKLV
ASNWYNRQIERSSRTLGCSEFIPVDDGGERPL"

ORIGIN

1 atgccatttg ttaataaaca atttaattat aaagatcctg taaatggtgt tgatattgct
61 tatataaaaa ttccaaatgt aggacaaatg caaccagtaa aagcttttaa aattcataat
121 aaaatatggg ttattccaga aagagataca tttacaaatc ctgaagaagg agatttaa
181 ccaccaccag aagcaaaaca agttccagtt tcatattatg attcaacata ttaagtaca
241 gataatgaaa aagataatta tttaaaggga gttacaaaat tatttgagag aatttattca
301 actgatcttg gaagaatgtt gttaacatca atagtaaggg gaataccatt ttgggggtga
361 agtacaatag atacagaatt aaaagttatt gataactaatt gtattaatgt gatacaacca
421 gatggtagt atagatcaga agaacttaat ctagtaataa taggaccctc agctgatatt
481 atacagtttg aatgtaaaag ctttgacat gaagttttga atcttacgcg aaatggttat
541 ggctctactc aatacattag atttagccca gattttacat ttggttttga ggagtcactt
601 gaagttgata caaatcctct tttaggtgca ggcaaatttg ctacagatcc agcagtaaca
661 ttagcacatg aacttatata tgctggacat agattatatg gaatagcaat taatccaaat
721 agggttttta aagtaaatac taatgcctat tatgaaatga gtgggttaga agtaagcttt
781 gaggaactta gaacatttg gggacatgat gcaaagtta tagatagttt acaggaaaac
841 gaatttcgtc tatattatta taataagttt aaagatatag caagtacact taataaagct
901 aaatcaatag taggtactac tgcttcatta cagtatatga aaaatgtttt taaagagaaa
961 tatctcctat ctgaagatac atctggaaaa ttttcggtag ataaattaaa atttgataag
1021 ttatacaaaa tggttaacaga gatttacaca gaggataatt ttgttaagtt ttttaaagta
1081 cttaacagaa aaacatattt gaattttgat aaagccgtat ttaagataaa tatagtacct
1141 aaggtaaatt acacaatata tgatggattt aatttaagaa atacaaattt agcagcaaac
1201 tttaatggtc aaaatacaga aattaataat atgaatttta ctaaactaaa aaattttact
1261 ggattgtttg aattttataa gttgctatgt gtaagaggga taataacttc taaaactaaa
1321 tcattagata aaggatacaa taaggcatta aatgatttat gtatcaaagt taataattgg
1381 gacttgtttt ttagtccttc agaagataat tttactaatg atctaaataa aggagaagaa
1441 attacatctg atactaatat agaagcagca gaagaaaata ttagttttaga tttatacaaa
1501 caatattatt taacctttta ttttgataat gaacctgaaa atatttcaat agaaaatctt

1561 tcaagtgaca ttataggcca attagaactt atgcctaata tagaaagatt tcctaattgga
1621 aaaaagtatg agttagataa atatactatg ttccattatc ttcgtgctca agaatttgaa
1681 catggtaaat ctaggattgc ttttaacaaat tctgttaacg aagcattatt aaatcctagt
1741 cgtgtttata catttttttc ttcagactat gtaaagaaaag ttaataaaagc tacggaggca
1801 gctatgtttt taggctgggt agaacaatta gtatatgatt ttaccgatga aactagcgaa
1861 gtaagtacta cggataaaat tgcggatata actataatta ttccatatat aggacctgct
1921 ttaaatatag gtaatatgtt atataaagat gatthttgtag gtgctttaat atthttcagga
1981 gctgtttattc tgttagaatt tataccagag attgcaatac ctgtattagg tactttttgca
2041 cttgtatcat atattgcgaa taagggttcta accgttcaaa caatagataa tgctttaagt
2101 aaaagaaatg aaaaatggga tgaggtctat aaatatatag taacaaattg gttagcaaag
2161 gttaatacac agattgatct aataagaaaa aaaatgaaag aagctttaga aaatcaagca
2221 gaagcaacaa aggctataat aaactatcag tataatcaat atactgagga agagaaaaat
2281 aatattaatt ttaatatga tgatttaagt tcgaaactta atgagtctat aaataaagct
2341 atgattaata taaataaatt tttgaatcaa tgctctgttt catatttaat gaattctatg
2401 atcccttatg gtgttaaacg gttagaagat tttgatgcta gtcttaaaga tgcattatta
2461 aagtatatat atgataatag aggaacttta attgggtcaag tagatagatt aaaagataaa
2521 gttaataata cacttagtac agatatacct tttcagcttt ccaaatacgt agataatcaa
2581 agattattat ctacatttac tgaatatatt aagaatatta ttaatacttc tatattgaat
2641 ttaagatatg aaagtaatca tttaatagac ttatctaggt atgcatcaaa aataaatatt
2701 ggtagtaaaag taaattttga tccaatagat aaaaatcaaa ttcaattatt taatttagaa
2761 agtagtaaaa ttgaggtaat tttaaaaaat gctattgtat ataatagtat gtatgaaaat
2821 tttagtacta gcttttggtt aagaattcct aagtatttta acagtataag tctaaataat
2881 gaatatacaa taataaattg tatggaaaat aattcaggat ggaaagtatc acttaattat
2941 ggtgaaataa tctggacttt acaggatact caggaaataa aacaaagagt agtttttaaa
3001 tacagtcaaa tgattaatat atcagattat ataaacagat ggatttttgt aactatcact
3061 aataatagat taaataactc taaaattttat ataaatggaa gattaataga tcaaaaacca
3121 atttcaaatt taggtaatat tcatgctagt aataatataa tgtttaaat agatggttgt
3181 agagatacac atagatatat ttggataaaa tattttaatc tttttgataa ggaattaaat
3241 gaaaaagaaa tcaaagattt atatgataat caatcaaatt caggattttt aaaagacttt
3301 tgggggtgatt atttacaata tgataaacca tactatatgt taaatttata tgatccaaat
3361 aaatatatcg atgtaaataa tgtaggtatt agagggtata tgtatcttaa agggcctaga
3421 ggtaacgtaa tgactacaaa cattttattta aattcaagtt tgtatatggg gacaaaattt
3481 attataaaaa aatatgcttc tggaaataaa gataatattg ttagaaataa tgatcgtgta
3541 tatattaatg tagtagttaa aaataaagaa tataggttag ctactaatgc atcacaggca
3601 ggcgtagaaa aaatactaag tgcattagaa atacctgatg taggaaatct aagtcaagta
3661 gtagtaatga agtcaaaaaa tgatcaagga ataacaaata aatgcaaaat gaatttacia
3721 gataataatg ggaatgatat aggcctttata ggatttcatc agtttaataa tatagctaaa
3781 ctagtagcaa gtaattggta taatagacaa atagaaagat ctagtaggac tttgggttgc
3841 tcatgggaat ttattcctgt agatgatgga tggggagaaa ggccactgta a