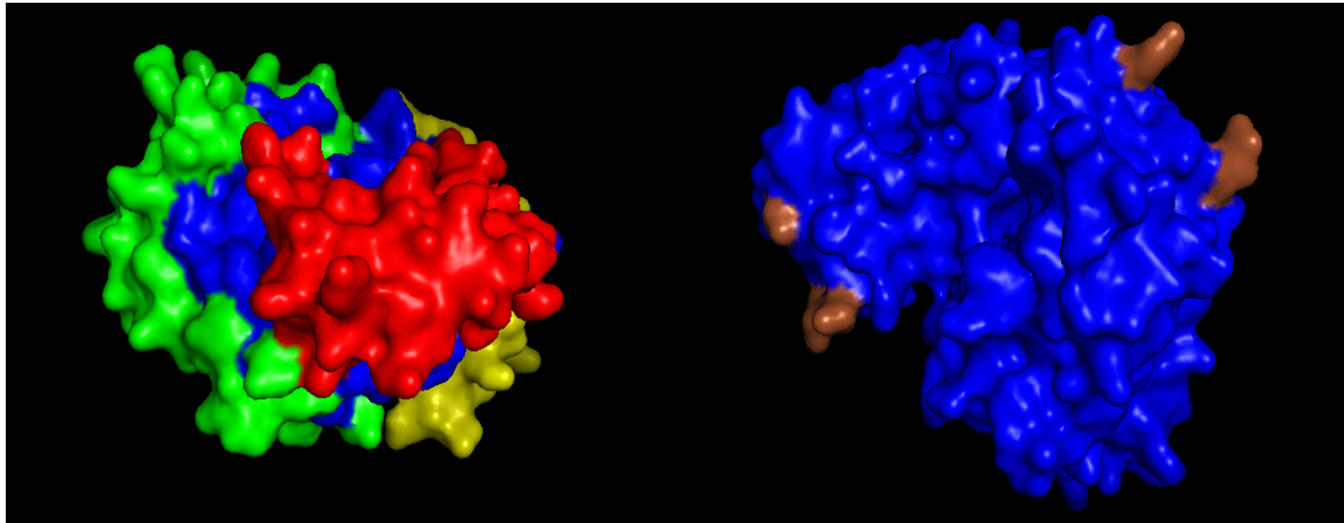


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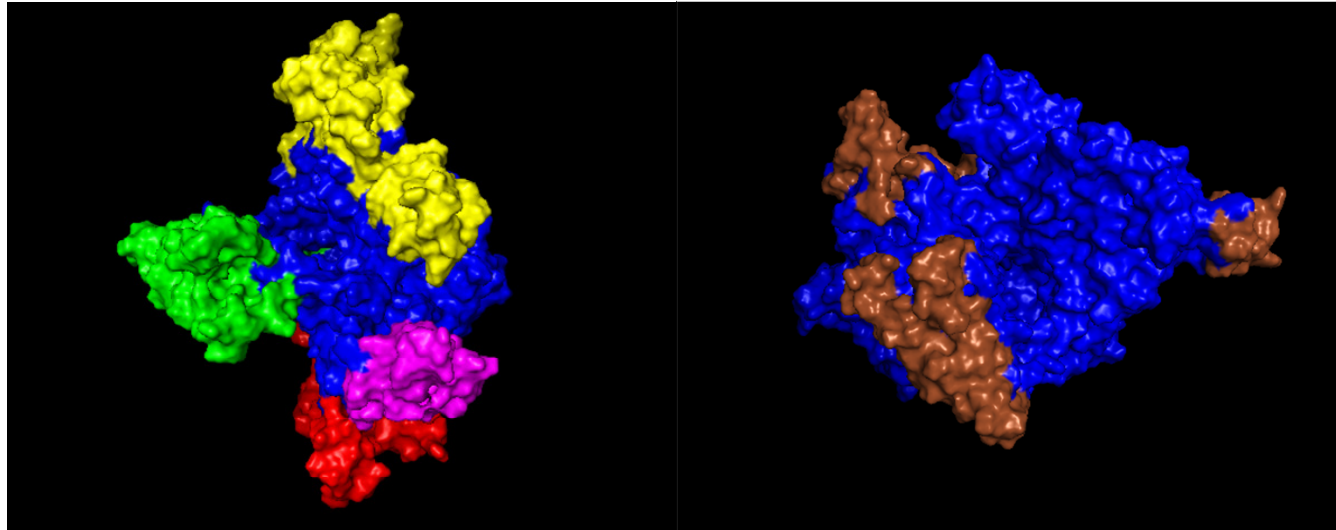
WP_011944569.1 UDP-N-acetylmuramate dehydrogenase
[*Orientia tsutsugamushi*]



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AGSNLLIRDNGIDGVTIKLGRSFNEINFVKNNHYNIIISVGAGTLNYDVAKFCLQHNLGGL
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IFTKTNLICYNDSKTSISQKLQKIQTVRKLTQPINQKTAGSAFRNTNNYKAWQLIDKVGLR
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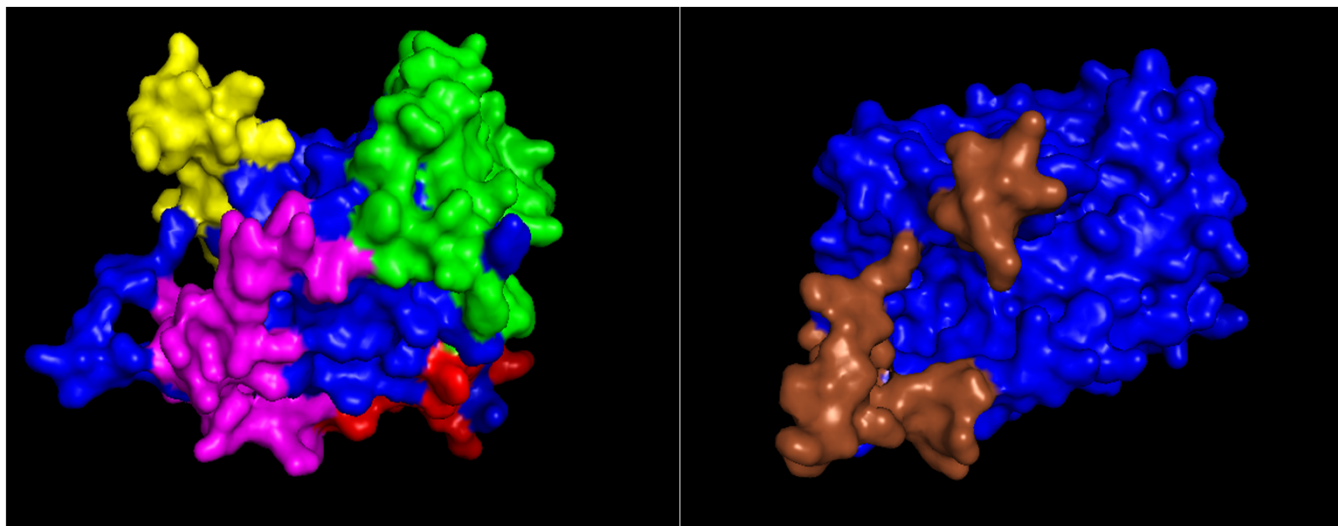
B

WP_011945117.1 type IV secretion system protein
[*Orientia tsutsugamushi*]



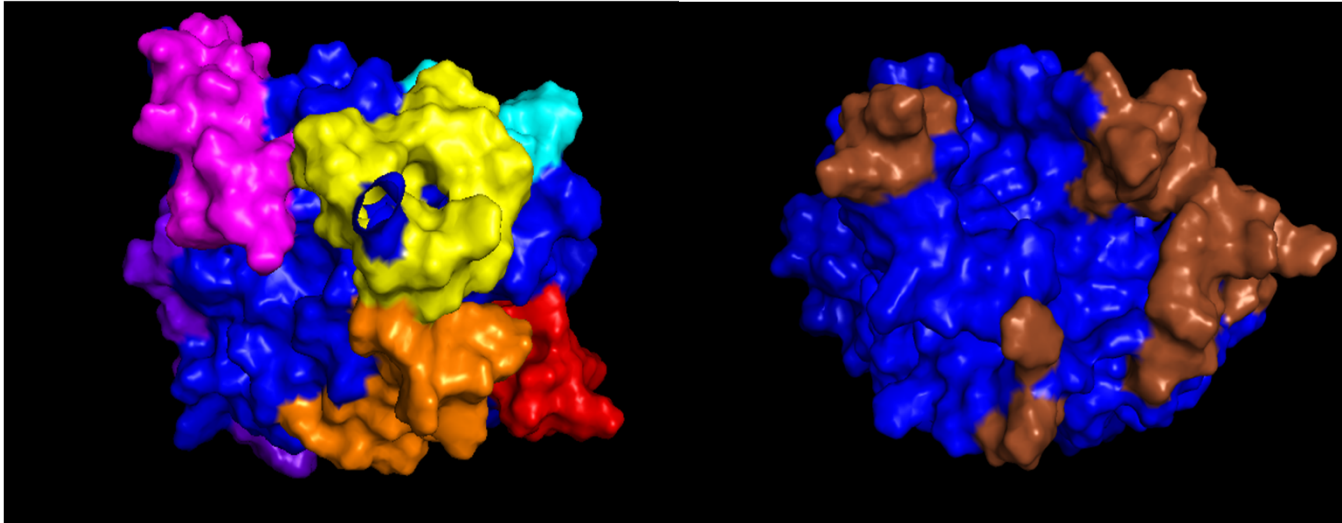
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YLVLRVDPFRFPVIGKTFIIELGTNNKPISRLHNFENGKLLNYQENSSNFQNGSTNFTNAI
NLQKKFFNGADTKISVKAGDIIDIALISSVDFFNKLQLKGGTEKSGFTGELYPRWDDYKYYK
PYGIYTVSLKSNVGVVDNALLVTGQTSDDKALSKLLVG VKSIDSISSEFEKCNLNNLSKSQSC
IMQSGIGMEIKLDQEV LKSKFDKFLVGYNVGNANSSAFLDKPIEGMYHIVAKSDGDLSFSTP
LFNNNVKYRTNGLQDVEYSSILSSCSTLNEFEQKYLNSILSSKQEIIQGI VVDKTLVGRYLM
YITIDRHNIVSDEYDGDIEYIISNTTPNLSTKGTTLPRNGINIVTPESAKLWFRFVKTNNEQ
FNLKVTPPDSEGKIKVAGFFYDNIYIPIKQKVEKF SKLFYFGLAKNAALKKVFSILAILYI
TLYGIYFLLGVVKVTAYDLLIRCSKIIVIAALFNESQYIFYDTLFP MFDGGINS LISYAVK
TTASDVDPNPFKFFDLVVSRYIDVNF LKII LIEIVNIHNGLTILGILTLWSIMRFIIIMVKVC
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VAVEAAFPEIRICWGTLFDIELNLDLSAIGLPTAFSIPLMAVPFYNVVFVGGNLFNAMDLGN
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C WP_012538808.1 phospho-N-acetylmuramoyl-pentapeptide-transferase
[*Borrelia recurrentis*]



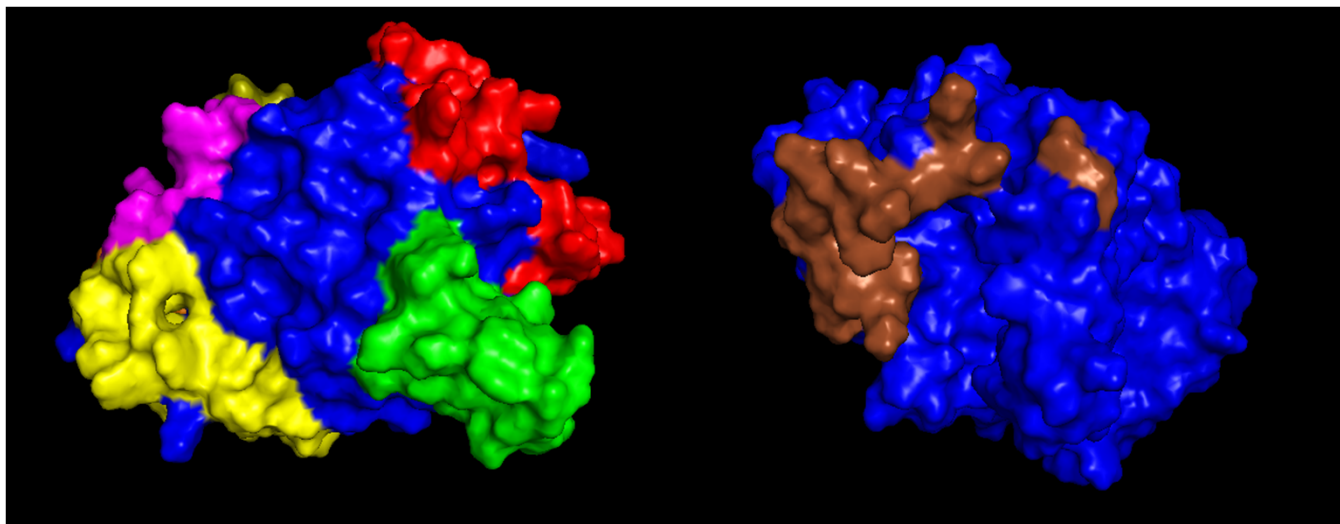
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LTDGLDGLAIGLSIVVIGALIIAYLTSRVDFALYLNIPNVKGCEELVIFLGALLGGSFGF
LWFNAYPAKIMMGDTGSLSIGAVLGMVALILKSEILFAILAGVFVETLSVIIQVVYKKT
KKRVFKMAPLHHHFEELGWSEMQVIRFWIIGLIFAILALSTIKIR

D NP_220963.1 phospho-N-acetylmuramoyl-pentapeptide-transferase
[*Rickettsia prowazekii* str. Madrid E]



MLYNLLPHIHNSHIANLFHYITFRSGLAIIITLSISFVTGPILIKFLRSLQKYGQPIRS
GPESHKTKAGTPTMGGIMIILSSCLSTLLLADLTNKYIWITLFGFISFGIIGFMDDYAKVK
RNNHYGVRGKSKFLLQGIISLIIYVLLLEYLDKNFSHLLNVPFFKNLSLDLNYFYMFVFAIFV
IVGSSNAVNLTGDLGGLATVPPIAFTAGSFALISYLVGNLIYANYLQPTYIPNTGELTVLCA
GLVGSCLGFLWFNAQPAEVFMGDTGSLSLGGVLGIISVITKHEIVLAIIGGLFVIETTSVI
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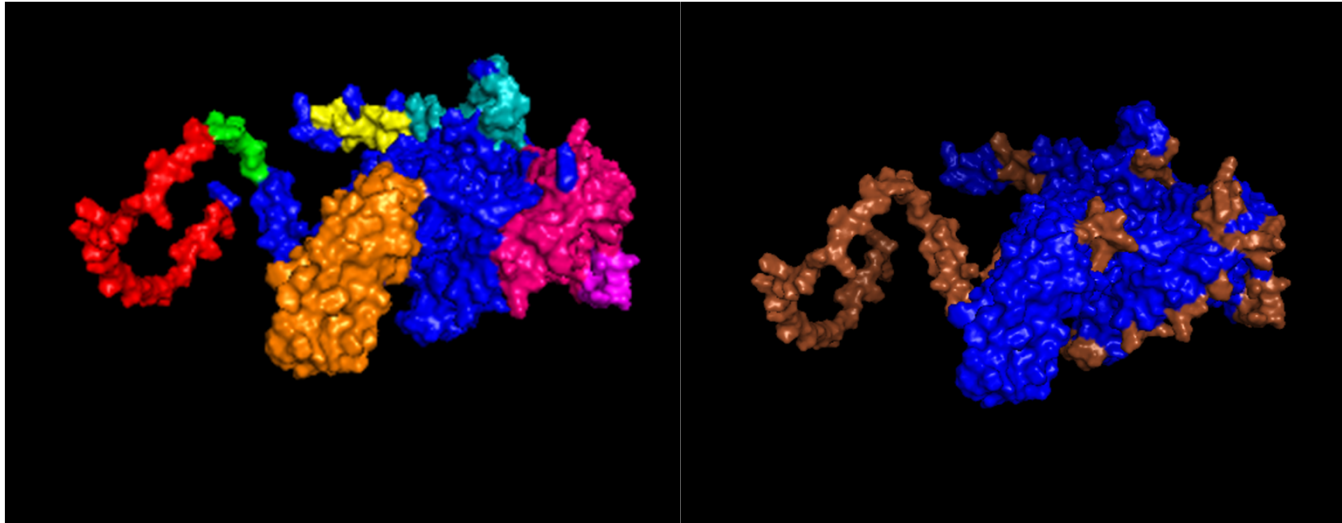
E WP_011944610.1 phospho-N-acetylmuramoyl-pentapeptide-transferase
[*Orientia tsutsugamushi*]



MLYNLLVSHINSCYISNIFYNVIVRSGIAILLSFSSISFSLIPILIKYFKYWKNLAQPIRNL
GHKSHIAKAGTPTMGGIAIVFSIIISTLMLADYKNIYVLTTIFVMLSLAILGLIDDYQKVT
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IIIGSSNAVNLTDGLDGLVTVPPIIIVAFCLGLMCYLADNAQYININHLQILHVQQASELTV
LCSAIIGASLGFLWYNIQPAKIFMGDVGSLSLGGAIGIISVISKNEIRLGIIGGLFVIEAL
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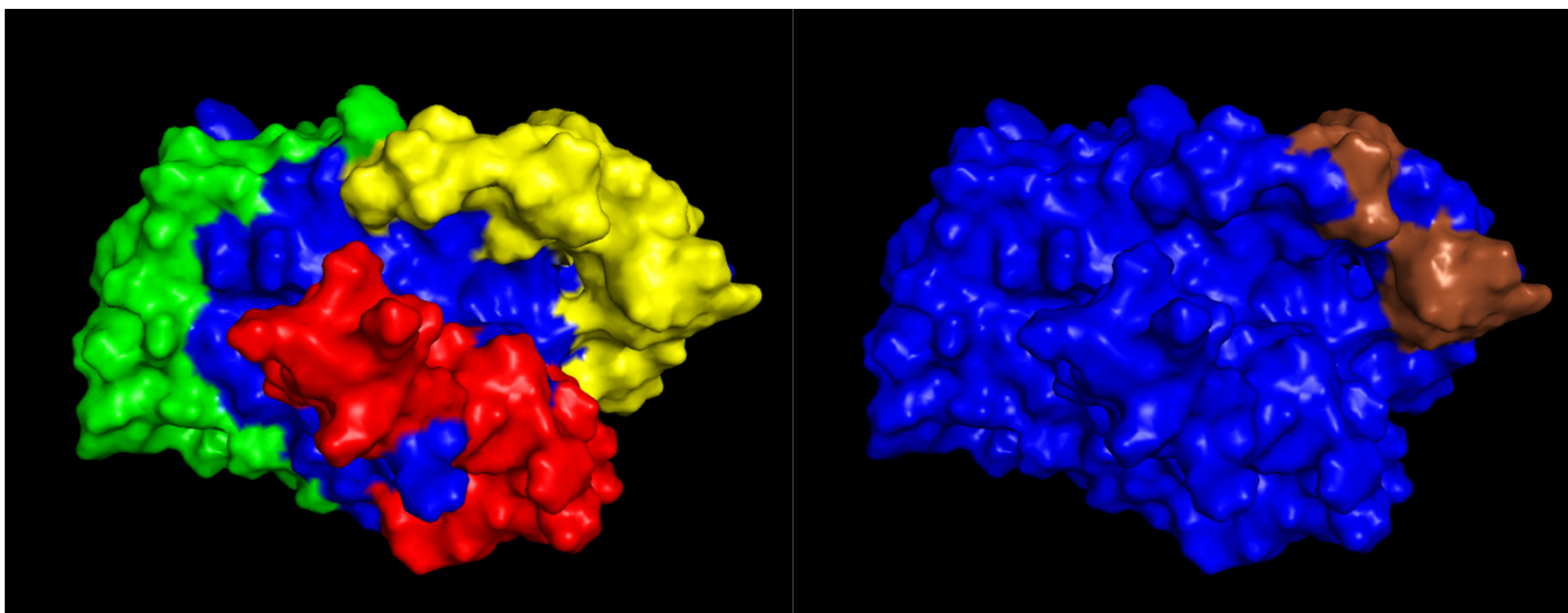
F

WP_011944382.1 type IV secretion system protein
[*Orientia tsutsugamushi*]



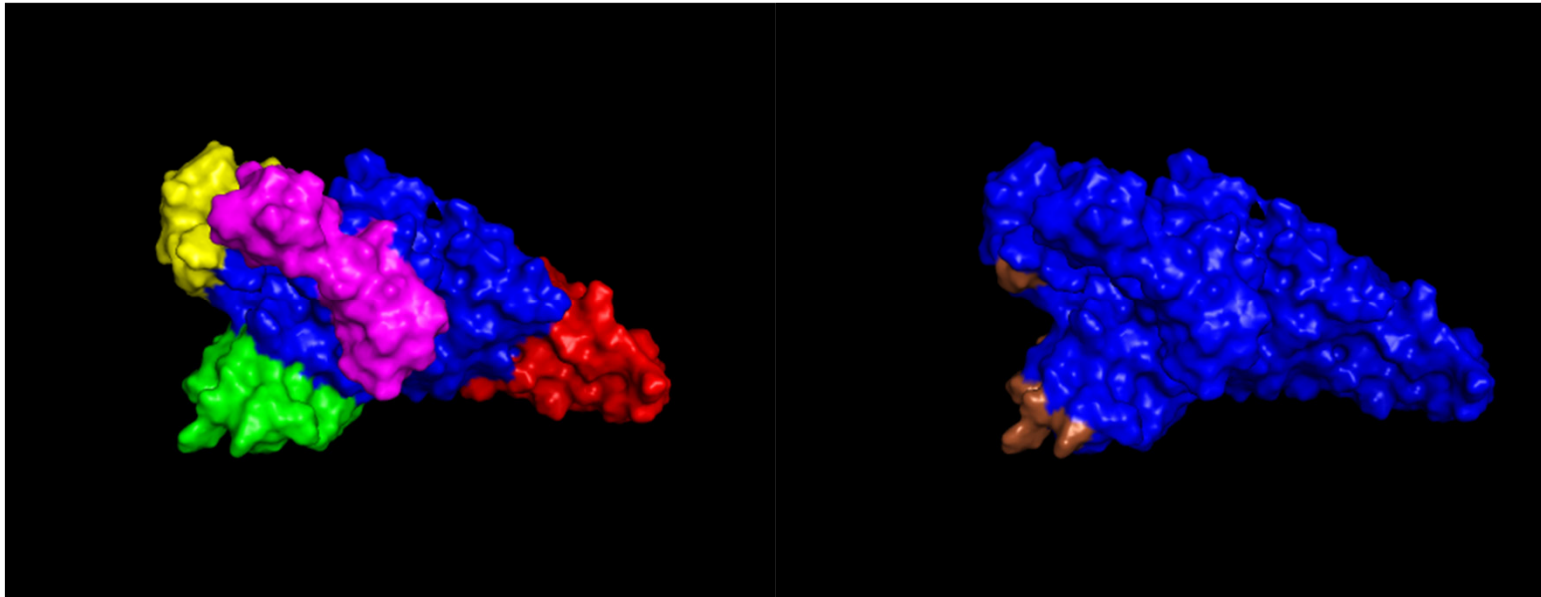
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HTLASITKRFPECRFRNNKTF**SDSYDDNDD**IPVINPPCLFKHGIGLYALIAKPGVDPNANV
HSQSYGIPKKTINFHVGQNYLSSLNSTELDSGFLDTPDGNIVKTGGYFHKY**QDQ**EAEQYV
GGRLYFKILDRFYDDNNGQYKIIKSGVGDEKDSPETFLINIVKEMLFG**NKKNQNKNGI**IQ
NLFINILKNPSYKIVVNLTLILFIAFSGLAFLIGNINMTAHELVLRTVKILVISVLLNSDT
AWKFFYDYLFIFVDGPQFIKTINEATAIGPGSSSILGLMIAPHTLKKLFSILFVDWGGF
IYIICYLILLYYIFIISFKATVLYLNALILVGIGI**IVGPVFLCFVLFQFTKPIFEN**WIKQL
TIYALQPVILFAGIAFVGMFIRHEIYASLGFRVCEV**PFPPIANTLIKIISGDSSKK**QSLLN
LWFPAQV**LKKTLLFSQ**KCANIPVPEDHIVYRDQKPWQCSDGISGNSKQLI**TST**TDPSNEKHC
SAYECKANRYVELPFLDPNINKDRYRIRNFFAGNFVQWDSLLLLAACVFLLSMFENDNAIAL
ANYISSGGDRSSASEKSTTAIVSTVTPPSPTTIPAAFSKIGQQRTKNSNSHSNSNSRS
GI
NTGPKK

G WP_020954693.1 phospho-N-acetylmuramoyl-pentapeptide-transferase
[*Borrelia miyamotoi*]



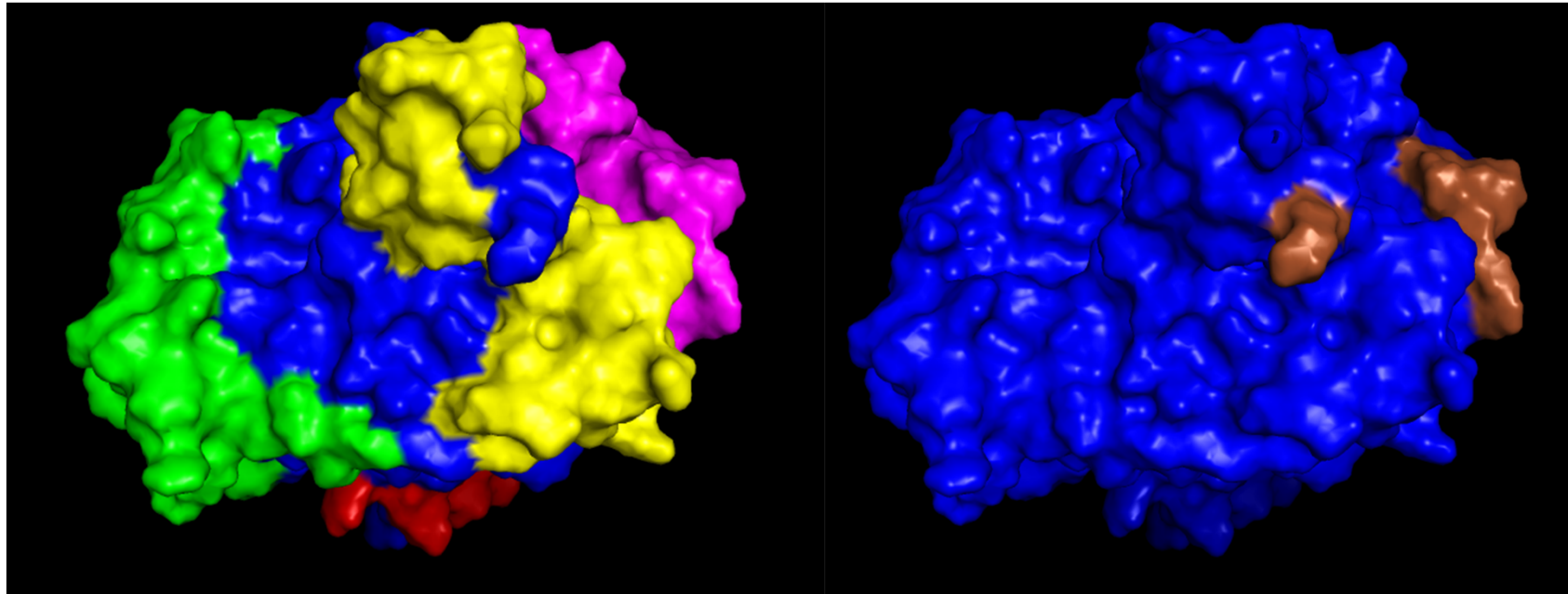
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SCISVTMLYYFGGDHVSIIYFPFFKSLKLDLGVLYIPFGIFILISASNSFNLTGGLDGLAIGLSIV
VTGSLVIIAYLTSRADFAFYLNIPNIKGSEELVVFLGALLGGSFGFLWFNAYPAKIMMGDTGSLSI
GAILGMVALILKSEILFAILTGVFIVETLSVIIQVAVYKKTKKRVFRMAPLHHHFEELGWSEMQVV
IRFWIIGLIFAILALSTLKIR

H WP_020954665.1 flagellar type III secretion system pore protein FliP
[*Borrelia miyamotoi*]



MNKKLSLFLFFGAMNFLFAQTKSLQPTNGLNFPFVDFVNSGGSGIIFPLQLLLILTIIITLSPAFLVL
MTSFLRIAIVLDFIRRALSLQQSPPNQIIMGLALFLTIFTMWPTFNIYEDAYLPLKESKIGFNQFY
DKGIAPLRNFMYKQMSNSRHEEIRLFMKISNYSRPKNFSEVPTHVLIASFILHELKIAFKMGILIFL
PFIVIDIIVVSAVLMAMGMIMLPPVMISLPFKLILFVMVDGWTLITSGLVKSFM

WP_075552002.1 phospho-N-acetylmuramoyl-pentapeptide-transferase
[*Borrelia mayonii*]



MFYLLGLRLLKYITFRMAYATIFAFLLSLIVGPYVILRLKKLRADQILREDGPKRHLSEKAGIPTMGGIL
IFFCVFISLVFWSNILLNVYFLIMVFVMLGFAFLGFIDDFLKIKNKTS DGLKARFKIYGQIIFSFSVSGIL
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SRADFAAYLYIPNIKGSEELVIFLGALLGGSFGFLWFNAYPAKIMMGDTGSLALGAILGMAALILKSEIL
FSILAGVFIIETMSVIIQVLVYKKTKKRVFKMAPLHHHFEELGWSEMQVVIRFWIIGLIFAIIALSTIKI
R