

Supplementary Figure 4: Alignment of TalC Subfamily aldolases, including phage sequences from P-SSM2, P-SSM4, P-SSP7 and P-RSM2

		@	@ @	@ @	
S_RSM2	1	MKIFLDTADTNVIKEYFETGLVDGVTNPTLIMKSG-RNPEEVYQEIKDIG--VEDISMEVMGTAAEMYH	67		
P_SSM2	1	MKIFLDTADTDAIKQHYDTGIIDGITNPTLIRKSG-RDPEEVYQELIDYG--INDISMEVVG DYGT MFE	67		
P_SSM4	1	MKLFLDCSDAEFIRDAYSTGLIDGVTNPSMLKAG-KDPREVLKEISDIFPFHASVSAEVVGD SVEEML	69		
P_SSP7	1	MKIFLDSAITTDIQDRATEIIDGVTNPTLIKKN-EDPDVVYKELYDMR--VKDLSIEVRGETAQELC	67		
<i>M.jannaschii</i>	1	MKFFLDTANVEEIKKYAELGLVDGVTNPTLVAKEG-RDFYEVVKEICEIV--EGPVSAEVISTDAEGMV	67		
<i>T.maritima</i>	1	MKIFLDTANLEEIKKGVEGWIVDGVTNPTLISKEG-AEFKQRVKEICDLV--KGPVSAEVVSLDYEGMV	67		
<i>B.subtilis</i>	1	MLFFVDTANIDEIREANELGILAGVTNPSLVAKEANVSFHDRLREITDVV--KGSVSAEVISLKA EEMI	68		
<i>E.coli_mipB</i>	1	MELYLDTSDVVAVKALSRIPLAGVTNPSIIAAGK-KPLDVVLPQLHEAMGGQGRLFAQVMATTAEGMV	69		
<i>E.coli_talC</i>	1	MELYLDTANVAEVERLARIFPIAGVTNPSIIAASK-ESIWEVLPRQLKAIGDEGILFAQTMSRDAQGMV	69		
Diagnostic residues		*	*	*** **	* * * *
		@	@ @ @ @	@ @ @	
S_RSM2	68	EGRRLH-LKFGDVATIKVPCTRDGLSVCKQLSDEGIKVNVTLIFCAAQAVLAAKAGATYVSPFVGR LDDQ	136		
P_SSM2	68	EGTRLS-RKFGKACTVKVPCTPDGLKVCREL SRDLVN NVNVT LIFSAAQAILA AKGAKYVSPFVGRVDDN	136		
P_SSM4	70	EMADDY-IEIGPNITIKVPLTPEGLKVCKDLSTDDVAVNVTLCFSTAQAILA AKGAGATYVSPFVGRVNDQ	138		
P_SSP7	68	ANGILYGRKYGEVATIKLPCTVEGLKACKKLSILGHKTNMTLVFSVSQAILCAHAGATYISPFVGR LDDQI	137		
<i>M.jannaschii</i>	68	KEAREL-AKLADNIVIKIPMTKDG MKAVKILSAEGIKTNVTLVFSPLOALVAAKAGATYVSPFVGR LDDI	136		
<i>T.maritima</i>	68	REAREL-AQISEYVVIKIPMTPDGIKAVKTLAEGIKTNVTLVFSPAQAILA AKGAGATYVSPFVGRMDDL	136		
<i>B.subtilis</i>	69	EEGKEL-AKIAPNITVKIPMTSDGLKAVRALTGLGIKTNVTLIFNANQALLAARAGATYVSPFLGR LDDI	137		
<i>E.coli_mipB</i>	70	NDALKL-RSIIADIVVKVPVTAEGLA AIKMLKAEGIPTLGTAVYGAAQGLLSALAGAEYVAPYVNRIDAQ	138		
<i>E.coli_talC</i>	70	EEAKRL-RDAIPGIVVKIPVTSEGLAAIKILKKEGITT LGTAVYSAAQGLLAALAGAKYVAPYVNRVDAQ	138		
Diagnostic residues		*	*	*	* * * * *
		@			
S_RSM2	137	SVAGLEVVR SISELYRIHGIR-TQVLSASIRSVQRAIRSWYNGAEICTMPPKVF DQMYDHILTDKGMEIF	205		
P_SSM2	137	SFVGMDLIEQISDIYTIQNVHKEILSASIRDVKSVD SDFASGAHVVTMPPTVF EKMYNHVLT DKG LYL F	206		
P_SSM4	139	SFDGIKLIEEISDVYATHKQK-TQVLAASIRDVYQVASC FRVGADICTIPSKIFSGMYKHILTDQGI AKF	207		
P_SSP7	138	GEDGIQLIQDIAKVFCIHNIE-TQILAASIRSPQAEDAYKAGAHICTLPVKVFDLMFRHHLTDEGLKQF	206		
<i>M.jannaschii</i>	137	GHVGMKLIEDVVKIYKNYDIK-TEVIVASVRHPWHVLEAAKIGADIATMPPAVMDKLFNHPLTDIGLERF	205		
<i>T.maritima</i>	137	SNDGMRMLGEIVEIYNNYGFE-TEIIAASIRHPMHVVEAALMGVDIVTMPFAVLEKLFKHPMTDLGIERF	205		
<i>B.subtilis</i>	138	GHNGLDLISEVKQIFDIHGLD-TQIIAASIRHPQHVT EAAALRG AHIGTMPLKVIHALTKHPLTGK GIEQF	206		
<i>E.coli_mipB</i>	139	GGSGIQTVTDLHQLLKMHPAQ-AKVLAASF KTPRQALDCLLAGCESITLPLDVAQQMISYP AVDAAVAKF	207		
<i>E.coli_talC</i>	139	GGDGIRTVQELQTLLEMHAPE-SMVLAASF KTPRQALDCLLAGCESITLPLDVAQQMLNTPAVESAIEKF	207		
Diagnostic residues			**	*	* * *
S_RSM2	206	ENDWKG VQK----	214		
P_SSM2	207	DMDWAQV KR----	215		
P_SSM4	208	DE DWTKLVGG---	217		
P_SSP7	207	ALDFGRNV-----	214		
<i>M.jannaschii</i>	206	LKDWD EYLKSRK-	217		
<i>T.maritima</i>	206	MEDWK KYLENLKK	218		
<i>B.subtilis</i>	207	LADWNK-----	212		
<i>E.coli_mipB</i>	208	EQDWQGA FGRTSI	220		
<i>E.coli_talC</i>	208	EHDWNAAFGTTHL	220		
Diagnostic residues		**			