

Table S5. Results of 3D-structure prediction of Des1 by Phyre2

Species	PDB Molecule	Template	Confidence	Coverage	Identity
<i>Thalassotalea hakodatensis</i> sp. nov. PTE2 ^T	Stearoyl-CoA desaturase	c4zyoA	100.0%	72%	30%
<i>Thalassotalea sediminis</i> KCTC 42588 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	30%
<i>Thalassotalea insulae</i> KCTC 62186 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	30%
<i>Thalassotalea piscium</i> JCM 18590 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	30%
<i>Thalassotalea agarivorans</i> JCM 13379 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	75%	30%
<i>Thalassotalea loyana</i> LMG 22536 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	27%
<i>Thalassotalea eurytherma</i> JCM 18482 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	75%	27%
<i>Thalassotalea atypica</i> JCM 31894 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	29%
<i>Thalassotalea marina</i> QBLM2 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	77%	29%
<i>Thalassotalea profundis</i> YM155 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	31%
<i>Thalassotalea mangrovi</i> zs-4 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	80%	30%
<i>Thalassotalea crassostreae</i> LPB0090 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	74%	32%
<i>Thalassotalea algicola</i> M1531 ^T	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	30%
<i>Thalassotalea litorea</i> MCCC IK03283	Stearoyl-CoA desaturase	c4zyoA	100.0%	75%	30%
<i>Thalassotalea euphylliae</i> H2	Stearoyl-CoA desaturase	c4ymkA	100.0%	76%	28%