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Open Reading Frames in Human GRCh38 mtDNA Genome (1-based indices)

Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
46	186	141	48.9	TGC	GGC	1
74	202	129	46.5	TGC	AAA	1
83	202	120	45.0	TAG	AAA	1
117	212	96	37.5	TGT	AAT	1
192	368	177	39.5	TAC	GAA	1
220	285	66	37.9	TGC	AAC	1
233	337	105	43.8	TAA	AAA	1
236	337	102	45.1	TAA	AAA	1
239	337	99	46.5	TAA	AAA	1
250	375	126	48.4	TGT	AAC	1
282	368	87	47.1	TAA	GAA	1
416	835	420	47.9	TGC	AGC	1
471	566	96	53.1	TAC	GAC	1
489	566	78	59.0	TAC	GAC	1
539	835	297	46.8	TAC	AGC	1
582	653	72	41.7	TGT	AGG	1
605	835	231	45.9	TAC	AGC	1
616	684	69	42.0	TGT	AGT	1
642	797	156	44.2	TAA	AGC	1
650	835	186	47.3	TAG	AGC	1
696	797	102	50.0	TGC	AGC	1
773	835	63	52.4	TGC	AGC	1
838	915	78	46.2	TAA	AAC	1
861	929	69	50.7	TAC	GAA	1
925	1020	96	41.7	TAG	GAC	1
968	1081	114	36.0	TAA	GAT	1
1016	1081	66	37.9	TAG	GAT	1
1040	1171	132	42.4	TAT	GGA	1
1055	1171	117	43.6	TAG	GGA	1
1081	1161	81	44.4	TAC	AAA	1
1091	1171	81	43.2	TGC	GGA	1
1187	1357	171	49.1	TAT	GAA	1
1219	1290	72	51.4	TAA	GGC	1
1257	1319	63	46.0	TAT	AAA	1
1259	1357	99	49.5	TAC	GAA	1
1284	1349	66	48.5	TGA	GGT	1
1344	1412	69	43.5	TGA	GGG	1
1359	1442	84	41.7	TGG	GAG	1
1391	1525	135	46.7	TAG	AAC	1
1400	1525	126	46.8	TGA	AAC	1
1506	1574	69	36.2	TAC	AAG	1
1545	1643	99	43.4	TAT	GGA	1
1547	1612	66	47.0	TAG	AGC	1
1568	1642	75	45.3	TGG	AGG	1
1745	1822	78	35.9	TAG	AAT	1
1780	1857	78	35.9	TAG	AAT	1
1809	1901	93	36.6	TAA	GAC	1
1819	1899	81	35.8	TAA	AAG	1
1822	1899	78	37.2	TAT	AAG	1
1824	1901	78	38.5	TAG	GAC	1
1843	1929	87	41.4	TAC	GAA	1
1854	1937	84	40.5	TAA	AAA	1
1857	1937	81	42.0	TGA	AAA	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
1872	1937	66	47.0	TAA	AAA	1
1954	2016	63	46.0	TGT	AGC	1
1964	2041	78	44.9	TAG	AGT	1
1979	2041	63	47.6	TAG	AGT	1
2013	2099	87	35.6	TAG	AGT	1
2168	2290	123	41.5	TAG	AGA	1
2242	2310	69	36.2	TAT	AAG	1
2244	2339	96	37.5	TAA	AAG	1
2299	2448	150	39.3	TGT	AAG	1
2307	2375	69	37.7	TAA	AAC	1
2316	2450	135	41.5	TGA	GGA	1
2336	2437	102	41.2	TAA	GGC	1
2383	2448	66	40.9	TAT	AAG	1
2439	2594	156	47.4	TGC	GGT	1
2445	2594	150	47.3	TAA	GGT	1
2559	2621	63	46.0	TGT	AGG	1
2599	2670	72	41.7	TAA	AAC	1
2618	2803	186	44.6	TAG	AAA	1
2630	2803	174	44.3	TGA	AAA	1
2634	2699	66	51.5	TGG	GGC	1
2705	2803	99	38.4	TAA	AAA	1
2731	2862	132	44.7	TGG	GAC	1
2750	2833	84	46.4	TGC	GAA	1
2854	2934	81	42.0	TGC	GGG	1
2887	2958	72	40.3	TAC	AGA	1
2903	2977	75	42.7	TAA	GGG	1
2936	3133	198	44.4	TAA	GGA	1
2964	3053	90	43.3	TAT	AAA	1
2973	3053	81	45.7	TAG	AAA	1
2991	3053	63	44.4	TGT	AAA	1
3012	3077	66	43.9	TGG	GAC	1
3143	3226	84	46.4	TAA	GGG	1
3178	3261	84	42.9	TGA	AAA	1
3181	3261	81	43.2	TAT	AAA	1
3202	3285	84	45.2	TAC	GGT	1
3237	3350	114	42.1	TGG	AAT	1
3258	3350	93	37.6	TAA	AAT	1
3308	4264	957	47.8	TAC	AAG	1
3314	4264	951	47.7	TGG	AAG	1
3356	4264	909	47.7	TGG	AAG	1
3368	4264	897	47.8	TGC	AAG	1
3396	3467	72	52.8	TAT	AAA	1
3398	4264	867	48.2	TAC	AAG	1
3464	4264	801	47.4	TAA	AAG	1
3562	3636	75	56.0	TGA	AGC	1
3578	4264	687	46.4	TAC	AAG	1
3730	3816	87	39.1	TAT	GAA	1
3732	3857	126	42.9	TGA	AAT	1
3773	4264	492	45.7	TAA	AAG	1
3841	3915	75	52.0	TGA	GGG	1
3854	4264	411	45.3	TAA	AAG	1
3857	4264	408	45.6	TAT	AAG	1
3859	3936	78	55.1	TGA	GGC	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
3949	4038	90	44.4	TAC	GGA	1
3980	4264	285	42.1	TAG	AAG	1
3988	4266	279	41.6	TAC	GAA	1
4004	4264	261	43.3	TAA	AAG	1
4007	4264	258	43.8	TAA	AAG	1
4045	4266	222	43.7	TAT	GAA	1
4047	4202	156	46.8	TGA	AGC	1
4078	4266	189	42.9	TAT	GAA	1
4120	4266	147	43.5	TGA	GAA	1
4135	4266	132	43.9	TAC	GAA	1
4163	4264	102	41.2	TAC	AAG	1
4174	4266	93	39.8	TGA	GAA	1
4211	4297	87	35.6	TAT	AGA	1
4213	4284	72	38.9	TGA	GAG	1
4216	4284	69	39.1	TAT	GAG	1
4218	4280	63	39.7	TGT	AAA	1
4226	4297	72	36.1	TAC	AGA	1
4270	4362	93	36.6	TGT	GAA	1
4277	4402	126	39.7	TAA	AAA	1
4294	4362	69	39.1	TAG	GAA	1
4303	4407	105	43.8	TAA	AAG	1
4306	4407	102	45.1	TAG	AAG	1
4338	4409	72	47.2	TGA	GGT	1
4418	4537	120	50.0	TAA	AAG	1
4434	4517	84	48.8	TAC	GGC	1
4445	4537	93	49.5	TGT	AAG	1
4454	4537	84	51.2	TAC	AAG	1
4573	5514	942	42.4	TAA	AGA	1
4579	5514	936	42.5	TGC	AGA	1
4612	5514	903	43.0	TAA	AGA	1
4672	5514	843	42.5	TAA	AGA	1
4684	5514	831	42.7	TAG	AGA	1
4705	5514	810	43.0	TAC	AGA	1
4726	5514	789	42.8	TAA	AGA	1
4746	4820	75	36.0	TAC	GAG	1
4759	5514	756	43.5	TAA	AGA	1
4765	5514	750	43.7	TAA	AGA	1
4768	5514	747	43.9	TAG	AGA	1
4774	5514	741	44.0	TAG	AGA	1
4780	5514	735	44.1	TAA	AGA	1
4792	5514	723	44.4	TAG	AGA	1
4866	4964	99	43.4	TGA	GGC	1
4894	5514	621	43.0	TAT	AGA	1
4896	4964	69	44.9	TAC	GGC	1
4957	5514	558	43.2	TAG	AGA	1
5010	5081	72	36.1	TAC	AAT	1
5029	5514	486	43.0	TAG	AGA	1
5034	5225	192	40.1	TGA	GGA	1
5038	5514	477	43.2	TAA	AGA	1
5041	5514	474	43.5	TAG	AGA	1
5068	5514	447	43.4	TAA	AGA	1
5093	5182	90	43.3	TAT	AAC	1
5184	5276	93	53.8	TGA	GAA	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
5259	5336	78	44.9	TGG	AAC	1
5291	5359	69	49.3	TAG	AAT	1
5314	5514	201	42.8	TAG	AGA	1
5389	5514	126	38.9	TAT	AGA	1
5407	5514	108	41.7	TAA	AGA	1
5412	5522	111	42.3	TGA	AGG	1
5426	5503	78	48.7	TAC	AAT	1
5511	5645	135	38.5	TAG	AAG	1
5528	5590	63	39.7	TAC	AAG	1
5567	5641	75	40.0	TAC	AAT	1
5666	5755	90	47.8	TGG	GGC	1
5806	7446	1641	46.3	TAT	GAC	1
5808	5945	138	46.4	TGA	GAC	1
5870	5992	123	48.0	TGC	AGG	1
5905	7446	1542	46.3	TGT	GAC	1
5958	6038	81	58.0	TAC	GGC	1
5976	6038	63	61.9	TGA	GGC	1
6086	6151	66	36.4	TGC	AGT	1
6097	7446	1350	45.9	TAA	GAC	1
6109	7446	1338	46.0	TAG	GAC	1
6115	7446	1332	46.2	TAC	GAC	1
6124	7446	1323	46.2	TAA	GAC	1
6160	7446	1287	46.2	TAA	GAC	1
6176	6256	81	48.1	TAT	AGT	1
6178	7446	1269	46.0	TGG	GAC	1
6193	7446	1254	45.8	TAA	GAC	1
6202	7446	1245	45.9	TAA	GAC	1
6253	7446	1194	45.7	TAG	GAC	1
6413	6511	99	50.5	TAT	AGC	1
6415	7446	1032	45.1	TAA	GAC	1
6430	7446	1017	44.9	TAA	GAC	1
6438	6539	102	50.0	TAC	GAC	1
6526	7446	921	44.3	TAC	GAC	1
6594	6701	108	37.0	TAC	GAA	1
6635	6718	84	36.9	TAT	AGG	1
6661	7446	786	43.6	TAA	GAC	1
6671	6754	84	36.9	TAT	AGG	1
6711	6791	81	39.5	TAC	GGA	1
6715	7446	732	44.4	TAG	GAC	1
6721	7446	726	44.5	TGG	GAC	1
6733	7446	714	44.4	TGA	GAC	1
6736	7446	711	44.4	TAT	GAC	1
6776	6931	156	47.4	TAT	AGG	1
6778	7446	669	44.5	TAT	GAC	1
6793	7446	654	45.0	TAG	GAC	1
6813	6932	120	50.0	TAT	GGA	1
6832	7446	615	44.7	TAA	GAC	1
6896	6979	84	46.4	TAT	AGC	1
6898	7446	549	44.1	TGA	GAC	1
6903	6995	93	47.3	TGA	GAC	1
7040	7120	81	44.4	TGT	AGA	1
7051	7446	396	43.4	TAG	GAC	1
7072	7446	375	43.5	TAG	GAC	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
7153	7446	294	43.2	TAT	GAC	1
7210	7446	237	43.0	TGC	GAC	1
7238	7300	63	38.1	TGC	AAT	1
7300	7446	147	40.8	TAT	GAC	1
7306	7446	141	42.6	TAA	GAC	1
7315	7446	132	44.7	TGA	GAC	1
7354	7446	93	45.2	TAG	GAC	1
7372	7446	75	45.3	TAA	GAC	1
7389	7529	141	44.7	TAT	GAA	1
7391	7459	69	44.9	TGG	GGA	1
7395	7529	135	45.2	TGC	GAA	1
7431	7529	99	40.4	TAC	GAA	1
7435	7566	132	36.4	TAA	AGG	1
7563	8270	708	45.6	TAG	AGC	1
7577	7639	63	42.9	TAT	GAA	1
7579	7674	96	43.8	TAT	AAT	1
7587	8270	684	46.3	TGG	AGC	1
7594	7674	81	45.7	TGC	AAT	1
7635	8270	636	45.9	TAG	AGC	1
7657	7719	63	42.9	TGA	AAC	1
7671	8270	600	46.0	TAA	AGC	1
7705	7770	66	37.9	TGC	AGA	1
7741	7806	66	47.0	TAC	AGT	1
7767	8270	504	47.6	TAG	AGC	1
7842	8270	429	46.6	TAA	AGC	1
7895	7972	78	46.2	TGG	GAA	1
7950	8270	321	46.1	TAC	AGC	1
8040	8270	231	44.2	TAA	AGC	1
8043	8270	228	44.7	TAA	AGC	1
8072	8221	150	48.7	TGA	GAA	1
8104	8220	117	50.4	TGC	AGA	1
8159	8221	63	46.0	TAC	GAA	1
8171	8251	81	40.7	TGC	GGG	1
8205	8270	66	40.9	TGC	AGC	1
8247	8309	63	54.0	TAG	AAC	1
8267	8344	78	41.0	TAG	GAA	1
8367	8573	207	40.1	TGC	AGG	1
8380	8445	66	43.9	TAC	AAA	1
8390	8509	120	37.5	TGG	AAC	1
8400	8573	174	37.9	TAA	AGG	1
8412	8573	162	37.7	TAC	AGG	1
8448	8573	126	38.1	TAT	AGG	1
8496	8573	78	37.2	TAA	AGG	1
8506	8574	69	43.5	TAA	GGC	1
8528	9208	681	44.2	TGA	AAT	1
8696	9208	513	44.2	TGA	AAT	1
8699	9208	510	44.3	TAA	AAT	1
8705	9208	504	44.4	TAC	AAT	1
8738	9208	471	44.8	TAC	AAT	1
8825	9208	384	45.6	TAA	AAT	1
8837	9208	372	45.7	TGG	AAT	1
8851	8922	72	47.2	TGA	GGC	1
8870	9208	339	44.8	TAG	AAT	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
8895	8990	96	46.9	TGC	AGC	1
8945	9208	264	43.9	TAC	AAT	1
8987	9208	222	45.5	TAG	AAT	1
9038	9208	171	42.1	TGC	AAT	1
9068	9208	141	39.7	TAT	AAT	1
9205	10056	852	45.0	TAA	GAG	1
9208	10056	849	45.1	TGA	GAG	1
9224	9286	63	52.4	TGC	AAT	1
9233	9301	69	58.0	TAT	AGC	1
9235	10056	822	45.1	TAG	GAG	1
9252	9344	93	55.9	TGA	GGC	1
9286	10056	771	44.4	TGA	GAG	1
9304	10056	753	43.8	TGT	GAG	1
9325	10056	732	43.9	TAA	GAG	1
9337	10056	720	43.8	TAC	GAG	1
9367	10056	690	43.8	TAT	GAG	1
9369	9440	72	51.4	TAC	GGC	1
9375	9440	66	53.0	TGA	GGC	1
9378	9440	63	54.0	TGG	GGC	1
9386	9457	72	48.6	TGT	AAT	1
9405	9476	72	45.8	TAC	GAA	1
9447	9545	99	43.4	TAC	GGA	1
9454	10056	603	42.8	TAA	GAG	1
9653	9805	153	40.5	TAG	AGC	1
9661	10056	396	40.2	TAG	GAG	1
9682	10056	375	40.5	TAA	GAG	1
9877	10056	180	36.1	TAT	GAG	1
9927	10001	75	36.0	TAC	AGT	1
10003	10767	765	38.8	TAA	AAA	1
10060	10767	708	39.8	TAA	AAA	1
10081	10767	687	40.3	TAA	AAA	1
10111	10767	657	40.3	TAA	AAA	1
10150	10767	618	40.8	TAG	AAA	1
10189	10767	579	40.1	TAT	AAA	1
10216	10767	552	38.8	TAA	AAA	1
10287	10388	102	41.2	TGA	GGA	1
10318	10767	450	39.3	TAG	AAA	1
10324	10767	444	39.6	TGT	AAA	1
10471	10767	297	43.1	TGC	AAA	1
10486	10767	282	42.9	TAA	AAA	1
10490	10570	81	38.3	TAT	AGA	1
10495	10767	273	44.3	TAC	AAA	1
10525	10767	243	45.3	TAC	AAA	1
10533	10733	201	47.8	TAT	GAC	1
10549	10767	219	45.7	TAT	AAA	1
10563	10733	171	48.0	TGC	GAC	1
10576	10767	192	45.8	TAA	AAA	1
10579	10767	189	46.6	TAC	AAA	1
10597	10767	171	48.0	TAG	AAA	1
10609	10767	159	48.4	TAA	AAA	1
10640	10705	66	54.5	TAT	AGT	1
10657	10767	111	48.6	TAC	AAA	1
10722	12185	1464	43.8	TAT	GAG	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
10724	10864	141	36.9	TGG	AGC	1
10761	12185	1425	43.9	TGC	GAG	1
10788	12185	1398	44.1	TAT	GAG	1
10824	12185	1362	44.3	TAA	GAG	1
10959	12185	1227	44.7	TAC	GAG	1
10992	12185	1194	44.6	TGG	GAG	1
11052	12185	1134	44.6	TAC	GAG	1
11082	12185	1104	45.0	TAA	GAG	1
11109	12185	1077	45.2	TAT	GAG	1
11116	11223	108	50.0	TAT	AGT	1
11165	11227	63	54.0	TGA	GGC	1
11201	11275	75	48.0	TAC	GGC	1
11343	12185	843	45.0	TAT	GAG	1
11345	11413	69	36.2	TGA	AAA	1
11361	12185	825	45.2	TAG	GAG	1
11370	12185	816	45.5	TAG	GAG	1
11379	12185	807	45.7	TAC	GAG	1
11402	11476	75	52.0	TGA	GGC	1
11419	11490	72	48.6	TGT	AAT	1
11445	12185	741	45.1	TAG	GAG	1
11482	11568	87	44.8	TGG	AAT	1
11487	12185	699	45.1	TAA	GAG	1
11490	12185	696	45.3	TAC	GAG	1
11529	12185	657	45.1	TAG	GAG	1
11558	11800	243	46.5	TGA	GGA	1
11565	12185	621	44.8	TAA	GAG	1
11571	12185	615	45.2	TAA	GAG	1
11621	11800	180	48.3	TAC	GGA	1
11640	12185	546	45.4	TAG	GAG	1
11706	12185	480	44.4	TAA	GAG	1
11784	12185	402	43.8	TAA	GAG	1
11823	12185	363	44.1	TAG	GAG	1
11834	11950	117	47.9	TGA	GGA	1
11929	12039	111	42.3	TAT	AAA	1
11958	12185	228	43.0	TAC	GAG	1
11975	12058	84	42.9	TAC	GAA	1
11988	12185	198	42.4	TAT	GAG	1
12005	12142	138	47.1	TGG	AAA	1
12036	12185	150	42.0	TAA	GAG	1
12069	12185	117	41.9	TGT	GAG	1
12075	12185	111	42.3	TAC	GAG	1
12143	12211	69	37.7	TAT	GAA	1
12145	12231	87	40.2	TAG	AAC	1
12235	12411	177	42.9	TGC	AAC	1
12243	12332	90	36.7	TGT	AAA	1
12255	12332	78	37.2	TGG	AAA	1
12278	14149	1872	44.7	TAA	AAC	1
12329	14149	1821	44.8	TAA	AAC	1
12338	14149	1812	45.0	TAA	AAC	1
12344	14149	1806	45.0	TGC	AAC	1
12356	14149	1794	45.0	TAA	AAC	1
12430	12510	81	40.7	TAC	GAC	1
12441	12509	69	39.1	TGT	AGA	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
12494	14149	1656	45.2	TAT	AAC	1
12500	14149	1650	45.3	TGT	AAC	1
12596	14149	1554	45.2	TAA	AAC	1
12599	14149	1551	45.3	TAT	AAC	1
12638	14149	1512	45.4	TAG	AAC	1
12659	14149	1491	45.7	TAA	AAC	1
12694	12771	78	38.5	TAT	GAG	1
12719	14149	1431	46.3	TAC	AAC	1
12785	14149	1365	46.4	TAT	AAC	1
12808	12927	120	48.3	TGA	GAC	1
12811	12927	117	48.7	TAC	GAC	1
12825	12896	72	50.0	TGC	AGC	1
12856	12927	72	45.8	TAC	GAC	1
12873	12941	69	43.5	TAT	AGC	1
12898	12981	84	46.4	TGA	GGC	1
12922	13002	81	54.3	TGA	GGC	1
12938	14149	1212	46.5	TAG	AAC	1
13046	14149	1104	45.5	TAG	AAC	1
13091	14149	1059	44.9	TAG	AAC	1
13143	13244	102	45.1	TAG	AGC	1
13171	13269	99	46.5	TGC	GGA	1
13224	13310	87	41.4	TGA	AGC	1
13274	14149	876	44.9	TAA	AAC	1
13277	14149	873	45.0	TAG	AAC	1
13349	14149	801	44.7	TAC	AAC	1
13358	14149	792	45.1	TGT	AAC	1
13392	13472	81	44.4	TGA	AGC	1
13401	13472	72	45.8	TAT	AGC	1
13412	14149	738	45.4	TAG	AAC	1
13433	14149	717	45.5	TAC	AAC	1
13484	14149	666	45.0	TAC	AAC	1
13538	14149	612	45.1	TAT	AAC	1
13543	13605	63	50.8	TAC	AGC	1
13602	13691	90	43.3	TAG	AAA	1
13613	14149	537	44.7	TAA	AAC	1
13674	13796	123	49.6	TAA	AAA	1
13874	14149	276	42.8	TAA	AAC	1
13888	13959	72	45.8	TGC	GGC	1
13910	14149	240	44.2	TAC	AAC	1
14084	14149	66	36.4	TAA	AAC	1
14146	14211	66	36.4	TAA	AAC	1
14178	14297	120	43.3	TAT	AAA	1
14180	14260	81	40.7	TAT	GGA	1
14182	14259	78	42.3	TAC	AGG	1
14197	14259	63	44.4	TGT	AGG	1
14231	14389	159	46.5	TAA	AAC	1
14237	14389	153	47.7	TAC	AAC	1
14256	14501	246	46.7	TAG	AAA	1
14294	14389	96	42.7	TAA	AAC	1
14348	14440	93	53.8	TAC	GGA	1
14431	14550	120	35.8	TGC	AAT	1
14441	14506	66	36.4	TAC	AAA	1
14523	14597	75	40.0	TAT	AAA	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
14525	14587	63	39.7	TAA	AAA	1
14547	14657	111	42.3	TAA	GAA	1
14550	14657	108	43.5	TAA	GAA	1
14581	14778	198	40.4	TAC	AAT	1
14594	14770	177	39.5	TAA	AAC	1
14598	14741	144	39.6	TAG	GAA	1
14666	14770	105	39.0	TAC	AAC	1
14704	14778	75	37.3	TGA	AAT	1
14707	14778	72	37.5	TAT	AAT	1
14709	15908	1200	45.6	TGA	AAT	1
14748	15908	1161	46.0	TGA	AAT	1
14757	15908	1152	45.9	TAC	AAT	1
14778	15908	1131	46.0	TAA	AAT	1
14834	14920	87	52.9	TGA	GAC	1
14837	14920	84	53.6	TGA	GAC	1
14904	15908	1005	45.6	TGC	AAT	1
14971	15120	150	47.3	TGG	AGC	1
15001	15120	120	45.8	TGG	AGC	1
15012	15908	897	44.8	TAT	AAT	1
15053	15136	84	42.9	TAT	GGC	1
15117	15908	792	44.9	TAG	AAT	1
15132	15908	777	44.9	TAG	AAT	1
15139	15228	90	47.8	TGT	AGT	1
15159	15908	750	44.5	TAT	AAT	1
15209	15376	168	47.6	TAC	GGA	1
15233	15376	144	48.6	TGA	GGA	1
15394	15465	72	43.1	TAA	AAT	1
15465	15908	444	43.2	TGA	AAT	1
15514	15612	99	49.5	TAC	AGG	1
15560	15739	180	43.9	TGA	GAC	1
15563	15739	177	44.1	TAT	GAC	1
15654	15908	255	39.6	TAA	AAT	1
15670	15732	63	36.5	TAT	AGC	1
15672	15908	237	39.2	TAT	AAT	1
15690	15908	219	39.7	TAA	AAT	1
15693	15908	216	40.3	TAT	AAT	1
15818	15898	81	35.8	TAC	AGT	1
15873	16013	141	36.2	TAC	AAA	1
15881	15961	81	40.7	TGG	GAG	1
15908	16000	93	39.8	TAC	AAG	1
15932	16000	69	37.7	TGA	AAG	1
16032	16139	108	44.4	TGG	AAA	1
16088	16318	231	43.3	TGT	AAA	1
16117	16275	159	44.7	TGA	GGA	1
16121	16318	198	43.4	TAT	AAA	1
16136	16318	183	43.7	TAA	AAA	1
16140	16274	135	47.4	TAC	AGG	1
16161	16274	114	48.2	TAA	AGG	1
16195	16275	81	48.1	TGC	GGA	1
16276	16386	111	45.0	TAC	GAT	1
16308	16436	129	48.8	TAG	GAG	1
16315	16386	72	47.2	TAA	GAT	1
16334	16465	132	54.5	TAG	AAC	1

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Begin	End	Length	%GC	Start Codon	Stop Codon	Strand
16368	16436	69	55.1	TGG	GAG	1
16372	16482	111	55.9	TGA	AAA	1
16386	16478	93	57.0	TAG	AGC	1
16422	16532	111	50.5	TAT	AAA	1
16462	16536	75	44.0	TAA	AGC	1

Considering:

```

Start codons := { ATG, ATA }
Stop  codons := { AGA, AGG, TAG, TAA }

```

Total ORFS: 482