

Supplementary Table

Table S1. Data from Improvisation Volocity 3DM analysis of HA-Dvl-2-GFP transiently ectopically expressed in HEK 293 cells

ID	Name	Time	Total Length	Tracking ID	Total Length (μm)	Velocity ($\mu\text{m}/\text{sec}$)	Displacement (μm)	Displacement Rate ($\mu\text{m}/\text{sec}$)	Meandering Index	Time Sp
645	Track 1	11:46:25.137 on 18-Mar-2005	39.5556	1	14.2897	0.0297194	3.42807	0.00712963	0.260504	15
646	Track 2	11:46:25.145 on 18-Mar-2005	34.6585	2	13.4271	0.0300662	3.26265	0.00730579	0.214859	14
681	Track 37	11:46:25.270 on 18-Mar-2005	21.6035	37	8.82714	0.0214405	4.76421	0.0115719	0.684088	13
679	Track 35	11:46:25.258 on 18-Mar-2005	18.7851	35	7.41612	0.0180132	1.4308	0.00347531	0.235957	13
673	Track 29	11:46:25.234 on 18-Mar-2005	25.9655	29	11.5615	0.0306257	5.03203	0.0133296	0.609059	12
647	Track 3	11:46:25.152 on 18-Mar-2005	15.7488	3	5.30016	0.017123	2.66697	0.00861609	0.530515	10
701	Track 57	11:46:25.331 on 18-Mar-2005	13.7782	57	6.70921	0.0244847	3.06312	0.0111786	0.629062	9
699	Track 55	11:46:25.323 on 18-Mar-2005	13.8835	55	4.84894	0.0176958	1.86531	0.00680732	0.365005	9
675	Track 31	11:46:25.242 on 18-Mar-2005	15.2305	31	6.64636	0.0276347	3.57102	0.0148478	0.618877	8
648	Track 4	11:46:25.157 on 18-Mar-2005	11.3845	4	5.08574	0.0211127	1.3821	0.0057376	0.367866	8
713	Track 69	11:46:25.365 on 18-Mar-2005	9.25068	69	4.37831	0.0213149	3.13477	0.015261	0.851182	7
669	Track 25	11:46:25.218 on 18-Mar-2005	15.806	25	5.7817	0.0280214	4.02001	0.0194833	0.802372	7
715	Track 71	11:46:25.373 on 18-Mar-2005	17.0359	71	7.27715	0.0354273	4.67817	0.0227747	0.540012	7
649	Track 5	11:46:25.162 on 18-Mar-2005	19.3793	5	7.38265	0.0357694	0.708738	0.00343388	0.115385	7
684	Track 40	11:46:25.280 on 18-Mar-2005	8.90526	40	3.41333	0.01985	2.44849	0.014239	0.833599	6
664	Track 20	11:46:25.201 on 18-Mar-2005	6.68697	20	2.41115	0.0140195	1.549	0.00900659	0.715456	6
693	Track 49	11:46:25.304 on 18-Mar-2005	7.87195	49	3.72006	0.0217004	1.33724	0.00780061	0.535954	6
719	Track 75	11:46:25.385 on 18-Mar-2005	6.41424	75	2.35504	0.0171884	1.71498	0.012517	0.839965	5
676	Track 32	11:46:25.245 on 18-Mar-2005	10.0018	32	4.7698	0.0346711	3.84362	0.0279388	0.709713	5
666	Track 22	11:46:25.207 on 18-Mar-2005	8.19974	22	3.94363	0.0286906	1.95947	0.0142555	0.684399	5
683	Track 39	11:46:25.276 on 18-Mar-2005	22.8023	39	7.79378	0.0566044	4.57886	0.0332552	0.632435	5
708	Track 64	11:46:25.351 on 18-Mar-2005	6.14211	64	2.05899	0.0150236	1.17696	0.00858784	0.577309	5
694	Track 50	11:46:25.308 on 18-Mar-2005	9.6999	50	3.57712	0.026078	1.71739	0.0125202	0.486664	5
672	Track 28	11:46:25.227 on 18-Mar-2005	9.20313	28	4.319	0.0314082	2.39019	0.0173817	0.418489	5
727	Track 83	11:46:25.408 on 18-Mar-2005	5.27834	83	2.80554	0.0204906	1.83296	0.0133873	0.371396	5
667	Track 23	11:46:25.211 on 18-Mar-2005	6.4555	23	2.25357	0.0163951	0.633914	0.00461183	0.309814	5
716	Track 72	11:46:25.377 on 18-Mar-2005	9.71008	72	3.1191	0.0227672	0.851797	0.00621751	0.276766	5
720	Track 76	11:46:25.388 on 18-Mar-2005	9.64442	76	3.23042	0.0314349	3.00295	0.0292215	0.974448	4

650	Track 6	11:46:25.165 on 18-Mar-2005	5.19324	6	1.98629	0.0192261	1.54906	0.0149939	0.940436	4
730	Track 86	11:46:25.416 on 18-Mar-2005	7.48229	86	2.43657	0.0237373	2.23687	0.0217919	0.931207	4
691	Track 47	11:46:25.298 on 18-Mar-2005	9.84946	47	3.52444	0.0341719	2.97251	0.0288205	0.908563	4
714	Track 70	11:46:25.368 on 18-Mar-2005	3.45209	70	1.49029	0.0145021	0.995878	0.00969094	0.883998	4
734	Track 90	11:46:25.428 on 18-Mar-2005	10.8563	90	4.82996	0.0470541	3.6972	0.0360186	0.647399	4
707	Track 63	11:46:25.348 on 18-Mar-2005	4.39444	63	2.64087	0.0256946	1.73664	0.0168968	0.644722	4
737	Track 93	11:46:25.438 on 18-Mar-2005	4.08466	93	1.91272	0.018634	1.0834	0.0105546	0.537939	4
733	Track 89	11:46:25.425 on 18-Mar-2005	3.3487	89	1.1448	0.0111528	0.621138	0.0060512	0.522535	4
651	Track 7	11:46:25.168 on 18-Mar-2005	4.84231	7	1.58869	0.0153775	0.865273	0.00837531	0.522441	4
702	Track 58	11:46:25.334 on 18-Mar-2005	4.9726	58	1.65637	0.0161063	0.740981	0.0072052	0.469032	4
725	Track 81	11:46:25.401 on 18-Mar-2005	4.44536	81	3.08619	0.0300345	0.56681	0.00551615	0.3976	4
686	Track 42	11:46:25.285 on 18-Mar-2005	3.07703	42	2.14897	0.0207929	0.33516	0.00324293	0.283318	4
680	Track 36	11:46:25.262 on 18-Mar-2005	2.48562	36	1.82308	0.0176384	0.424373	0.00410584	0.241389	4
704	Track 60	11:46:25.340 on 18-Mar-2005	3.92635	60	1.33326	0.0194577	1.32654	0.0193597	0.9955	3
729	Track 85	11:46:25.413 on 18-Mar-2005	3.91668	85	1.29933	0.0189728	1.23961	0.0181009	0.99493	3
731	Track 87	11:46:25.419 on 18-Mar-2005	3.80201	87	1.24178	0.0181325	1.21718	0.0177733	0.990695	3
668	Track 24	11:46:25.213 on 18-Mar-2005	1.96778	24	0.843127	0.0122828	0.821628	0.0119696	0.990104	3
654	Track 10	11:46:25.177 on 18-Mar-2005	2.37397	10	0.807531	0.0117231	0.771711	0.0112031	0.985376	3
703	Track 59	11:46:25.337 on 18-Mar-2005	4.60392	59	1.4777	0.0215657	1.44426	0.0210777	0.981104	3
744	Track 100	11:46:25.454 on 18-Mar-2005	4.06179	100	1.89549	0.0277074	1.51855	0.0221975	0.921185	3
670	Track 26	11:46:25.221 on 18-Mar-2005	1.36349	26	1.04615	0.0152404	1.02511	0.014934	0.900092	3
724	Track 80	11:46:25.398 on 18-Mar-2005	3.32095	80	1.78432	0.0260458	1.68233	0.024557	0.898884	3
700	Track 56	11:46:25.326 on 18-Mar-2005	3.23607	56	1.0257	0.0149507	0.89649	0.0130674	0.874032	3
739	Track 95	11:46:25.443 on 18-Mar-2005	2.78858	95	0.883861	0.0129062	0.769161	0.0112313	0.870228	3
712	Track 68	11:46:25.361 on 18-Mar-2005	3.13437	68	1.06369	0.01553	0.889955	0.0129934	0.837382	3
745	Track 101	11:46:25.457 on 18-Mar-2005	5.17883	101	1.64829	0.0240939	1.36922	0.0200145	0.833587	3
653	Track 9	11:46:25.174 on 18-Mar-2005	4.02518	9	1.5932	0.0231288	1.36085	0.0197557	0.764926	3
726	Track 82	11:46:25.404 on 18-Mar-2005	3.628	82	1.82936	0.0267031	0.983456	0.0143555	0.749242	3
732	Track 88	11:46:25.421 on 18-Mar-2005	2.06372	88	0.914747	0.0133572	0.472492	0.00689935	0.722344	3
723	Track 79	11:46:25.395 on 18-Mar-2005	3.57854	79	1.1541	0.016841	0.81874	0.0119473	0.711884	3
742	Track 98	11:46:25.450 on 18-Mar-2005	11.7511	98	4.32868	0.0632745	2.79847	0.0409066	0.706882	3
652	Track 8	11:46:25.171 on 18-Mar-2005	6.6219	8	2.3264	0.0337727	1.4829	0.0215276	0.706528	3
735	Track 91	11:46:25.432 on 18-Mar-2005	2.15957	91	1.12323	0.0164015	0.767826	0.0112118	0.636409	3
695	Track 51	11:46:25.311 on 18-Mar-2005	12.0071	51	4.8473	0.0706097	2.89738	0.0422057	0.595765	3
687	Track 43	11:46:25.288 on 18-Mar-2005	2.47568	43	1.58718	0.0229956	0.337263	0.00488638	0.429806	3
655	Track 11	11:46:25.179 on 18-Mar-2005	2.94845	11	1.32071	0.019173	0.779646	0.0113183	0.341508	3

696	Track 52	11:46:25.313 on 18-Mar-2005	0.628063	52	0.299048	0.00871094	0.299048	0.00871094	1	2
689	Track 45	11:46:25.293 on 18-Mar-2005	1	45	0.316957	0.00917877	0.316957	0.00917877	1	2
698	Track 54	11:46:25.317 on 18-Mar-2005	1	54	0.316957	0.0092326	0.316957	0.0092326	1	2
743	Track 99	11:46:25.452 on 18-Mar-2005	1	99	0.316957	0.00925488	0.316957	0.00925488	1	2
722	Track 78	11:46:25.393 on 18-Mar-2005	1.00306	78	0.333931	0.00974749	0.333931	0.00974749	1	2
678	Track 34	11:46:25.251 on 18-Mar-2005	0.528099	34	0.385948	0.0112399	0.385948	0.0112399	1	2
705	Track 61	11:46:25.342 on 18-Mar-2005	1.06301	61	0.386657	0.0112773	0.386657	0.0112773	1	2
721	Track 77	11:46:25.390 on 18-Mar-2005	1.18936	77	0.387399	0.0113082	0.387399	0.0113082	1	2
685	Track 41	11:46:25.282 on 18-Mar-2005	0.632567	41	0.396194	0.0114734	0.396194	0.0114734	1	2
661	Track 17	11:46:25.192 on 18-Mar-2005	1.27475	17	0.404043	0.0117419	0.404043	0.0117419	1	2
706	Track 62	11:46:25.344 on 18-Mar-2005	1.37437	62	0.435616	0.0127052	0.435616	0.0127052	1	2
748	Track 104	11:46:25.464 on 18-Mar-2005	1.41421	104	0.448245	0.0131206	0.448245	0.0131206	1	2
658	Track 14	11:46:25.186 on 18-Mar-2005	1.39642	14	0.452654	0.0131546	0.452654	0.0131546	1	2
662	Track 18	11:46:25.194 on 18-Mar-2005	1.10554	18	0.471949	0.0137153	0.471949	0.0137153	1	2
741	Track 97	11:46:25.447 on 18-Mar-2005	1.48268	97	0.477791	0.0139511	0.477791	0.0139511	1	2
747	Track 103	11:46:25.461 on 18-Mar-2005	0.550685	103	0.505322	0.0147913	0.505322	0.0147913	1	2
711	Track 67	11:46:25.358 on 18-Mar-2005	1.41421	67	0.548518	0.0160224	0.548518	0.0160224	1	2
746	Track 102	11:46:25.459 on 18-Mar-2005	1.02242	102	0.593153	0.0173622	0.593153	0.0173622	1	2
682	Track 38	11:46:25.272 on 18-Mar-2005	1.69967	38	0.624637	0.0181912	0.624637	0.0181912	1	2
717	Track 73	11:46:25.379 on 18-Mar-2005	2	73	0.633914	0.018504	0.633914	0.018504	1	2
736	Track 92	11:46:25.435 on 18-Mar-2005	0.978945	92	0.634325	0.0185281	0.634325	0.0185281	1	2
660	Track 16	11:46:25.190 on 18-Mar-2005	1.03749	16	0.643606	0.0187039	0.643606	0.0187039	1	2
656	Track 12	11:46:25.181 on 18-Mar-2005	2.3453	12	0.744608	0.0216391	0.744608	0.0216391	1	2
657	Track 13	11:46:25.184 on 18-Mar-2005	2.13437	13	0.746732	0.0217009	0.746732	0.0217009	1	2
709	Track 65	11:46:25.354 on 18-Mar-2005	2.37062	65	0.751385	0.0219482	0.751385	0.0219482	1	2
740	Track 96	11:46:25.445 on 18-Mar-2005	0.849837	96	0.835006	0.0243815	0.835006	0.0243815	1	2
718	Track 74	11:46:25.381 on 18-Mar-2005	2.73144	74	0.865916	0.0252762	0.865916	0.0252762	1	2
728	Track 84	11:46:25.410 on 18-Mar-2005	2.47768	84	0.917392	0.0267962	0.917392	0.0267962	1	2
665	Track 21	11:46:25.203 on 18-Mar-2005	1.63877	21	1.09771	0.0318418	1.09771	0.0318418	1	2
690	Track 46	11:46:25.295 on 18-Mar-2005	3.75035	46	1.20868	0.035045	1.20868	0.035045	1	2
659	Track 15	11:46:25.188 on 18-Mar-2005	2.44949	15	1.22569	0.0356198	1.22569	0.0356198	1	2
697	Track 53	11:46:25.315 on 18-Mar-2005	4.47214	53	1.41748	0.0412895	1.41748	0.0412895	1	2
738	Track 94	11:46:25.440 on 18-Mar-2005	5.04264	94	1.60372	0.0468432	1.60372	0.0468432	1	2
710	Track 66	11:46:25.356 on 18-Mar-2005	5.18545	66	1.6737	0.0488892	1.6737	0.0488892	1	2
688	Track 44	11:46:25.290 on 18-Mar-2005	2.87839	44	2.10487	0.0609551	2.10487	0.0609551	1	2
677	Track 33	11:46:25.248 on 18-Mar-2005	7.45356	33	2.36246	0.0690488	2.36246	0.0690488	1	2

663	Track 19	11:46:25.197 on 18-Mar-2005	8.544	19	2.70808	0.0785551	2.70808	0.0785551	1	2
692	Track 48	11:46:25.300 on 18-Mar-2005	6.1554	48	2.72113	0.0788975	2.72113	0.0788975	1	2
674	Track 30	11:46:25.237 on 18-Mar-2005	8.79303	30	2.95884	0.0864793	2.95884	0.0864793	1	2
671	Track 27	11:46:25.223 on 18-Mar-2005	8.13277	27	3.02382	0.0878291	3.02382	0.0878291	1	2

Mean**SD**

Mean Meandering Index 3 points or more: 0.649376906 0.240373982

Mean Meandering Index 4 points or more: 0.56394461 0.228771222

Mean Meandering Index 5 points of more: 0.526544519 0.210518786

Mean Meandering Index 6 points of more: 0.524103059 0.228443225

Mean Velocity of 3 points of more: 0.024277492 0.011384791