

Supplementary Table S1. p-values for mutation patterns of established and novel SMGs among 65 hypermutated endometrial tumors

Gene	p-values (Fisher's Exact test §)																															Reference	
	PTEN	PIK3CA	PIK3R1	ARID1A	RPL22	KRAS	ZFH3	ARID5B	CTCF	CSMD3	CTNNB1	GIGYF2	BCOR	CSDE1	FGFR2	CCND1	LIMCH1	RBMX	NKAP	ATR	FBXW7	PPP2R1A	HIST1H2BD	TP53	CHD4	SPOP	MECOM	METTL14	SGK1	TNFAIP6	SOX17		
PTEN	---	0.5544	0.091419	0.3717	0.6283	0.4093	0.2225	0.4032	0.4032	0.5527	0.5063	0.5063	0.5921	0.3567	0.695	0.3274	0.6726	0.3274	0.2032	0.5607	0.4393	0.15513	0.49308	0.5069	0.5834	0.4166	0.33013	0.669872	0.7673	0.8769	17, 32, 33]		
PIK3CA	---	---	<b>0.000005</b>	0.4132	0.2315	0.0517	0.4414	0.5968	0.5968	0.2819	0.3801	0.6233	0.612	0.0969	0.1663	0.4456	0.2701	0.4456	0.4122	0.4133	0.265	0.26499	0.229474	0.5742	0.2504	0.2504	0.55849	0.092949	0.7139	0.4615	17, 32, 33]		
PIK3R1	---	---	---	0.519	0.3174	0.1845	0.0857	0.3863	0.6137	0.4804	0.4201	0.5799	0.276	0.6306	0.2523	0.5981	0.5981	0.5981	0.2801	0.5444	0.4556	0.54436	0.069705	0.6714	0.1719	0.5276	0.6503	0.349702	0.6438	0.4	17, 32, 33]		
ARID1A	---	---	---	---	0.1912	0.0536	0.4706	0.4966	0.5034	0.5876	0.3221	0.5694	0.6246	0.2005	0.2768	0.3278	0.1258	0.3278	0.4844	0.2722	0.6106	0.61057	0.615022	0.385	0.4725	0.1383	0.24405	0.694597	0.6058	0.6308	17, 32, 33]		
RPL22	---	---	---	---	---	0.2926	0.5294	0.276	0.4966	0.1481	0.5694	0.4306	0.3754	0.5453	0.5615	0.1146	0.1258	0.3278	0.2212	0.3894	0.6106	0.12822	<b>0.005146</b>	0.615	0.5275	<b>0.0157</b>	0.6946	0.694597	0.3942	0.6308	17, 32, 33]		
KRAS	---	---	---	---	---	---	0.5977	0.5535	0.1319	0.0564	0.2417	0.276	0.5978	0.2323	<b>0.0139</b>	0.4093	0.5907	0.5907	0.4788	0.0635	0.3568	0.64322	0.585338	0.5853	0.5553	0.1653	0.26282	0.262821	0.5861	0.6462	17, 32, 33]		
ZFH3	---	---	---	---	---	---	---	<b>0.0354</b>	0.4799	0.1163	0.3601	0.1566	0.5453	0.3654	0.5677	0.1949	0.2225	0.5291	0.3674	0.2628	0.3944	0.60556	0.164909	0.5087	0.0829	0.3608	0.67514	0.221841	0.476	0.3077	17, 32, 33]		
ARID5B	---	---	---	---	---	---	---	---	0.2294	0.5903	0.344	0.6286	0.4922	0.5822	0.6584	0.5968	0.5968	0.2662	0.5141	0.4228	0.5772	0.19238	0.076106	0.3253	0.3402	0.6598	0.44872	0.448718	0.5889	0.7692	17, 32, 33]		
CTCF	---	---	---	---	---	---	---	---	---	0.4097	0.6286	0.3714	0.4922	0.4178	<b>0.025</b>	0.2662	0.5968	0.4032	0.1946	0.1924	0.5772	0.19238	0.256512	0.6747	0.6598	0.6598	0.44872	0.448718	0.5889	0.7692	17, 32, 33]		
CSMD3	---	---	---	---	---	---	---	---	---	---	0.103	0.4283	0.1787	0.367	0.2964	0.5527	0.4473	0.4473	0.4715	0.3838	0.6162	0.61619	0.707959	0.292	0.6309	0.6309	0.11458	0.523237	0.613	0.2154	17, 32, 33]		
CTNNB1	---	---	---	---	---	---	---	---	---	---	---	0.2355	0.3821	0.1028	0.5789	0.4937	0.4937	0.5063	0.4277	0.0888	0.2465	0.34448	0.259265	0.2593	0.6001	0.3999	0.49405	0.494048	0.6375	0.2	17, 32, 33]		
GIGYF2	---	---	---	---	---	---	---	---	---	---	---	---	0.6179	0.6445	0.5789	0.1491	0.4937	0.1917	0.1365	0.3445	0.6555	0.34448	0.259265	0.3146	0.6001	0.6001	0.49405	0.494048	0.3625	0.2	17, 32, 33]		
BCOR	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4605	0.4756	0.5921	0.1265	0.2061	0.0877	0.2662	0.2662	<b>0.00603</b>	0.382876	0.3829	0.5329	0.5329	0.07177	0.432143	0.688	0.1692	17, 32, 33]		
CSDE1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1345	0.6433	0.6433	0.6433	0.2921	0.2279	0.649	0.64903	0.165932	0.1659	0.1088	0.5037	0.39938	0.059409	0.7139	0.1538	17, 32, 33]		
FGFR2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.305	0.695	0.695	0.2471	0.6069	0.3931	0.19071	0.462454	0.5375	0.089	0.4575	0.36539	<b>0.048077</b>	0.7404	0.1385	17, 32, 33]		
CCND1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3274	0.2536	0.2032	0.5607	0.4393	0.56067	0.110498	0.4931	0.4166	<b>0.0048</b>	0.66987	0.330128	0.7673	0.8769	17, 32, 33]		
LIMCH1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.6726	0.3798	0.5607	<b>0.0212</b>	0.56067	0.50692	0.5069	0.5834	0.5834	0.33013	0.330128	0.2327	0.8769	17, 32, 33]		
RBMX	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3798	0.5607	0.5607	0.43933	0.110498	0.1105	0.5834	0.4166	0.66987	0.669872	<b>0.0135</b>	0.8769	17, 32, 33]		
NKAP	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.51	0.49	0.12166	0.554743	0.4453	0.3733	0.0543	0.29359	0.29359	0.7947	0.1077	17, 32, 33]	
ATR	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4545	0.09084	0.393892	0.3939	0.3278	0.6722	<b>0.00046</b>	0.255746	0.8226	0.0923	17, 32, 33]	
FBXW7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5455	0.606108	0.6061	0.6722	0.6722	0.25575	0.744254	0.1774	0.9077	17, 32, 33]	
PPP2R1A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.606108	0.6061	0.3278	<b>0.0397</b>	<b>0.02072</b>	<b>0.020719</b>	0.8226	0.0923	17, 32, 33]	
HIST1H2BD	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3388	0.7202	0.2798	0.78343	0.783425	0.851	0.9231	17, 32, 33]	
TP53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7202	0.7202	0.78343	0.783425	0.149	0.9231	17, 32, 33]	
CHD4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7708	0.17605	0.176053	0.8798	0.0615	17, 32, 33]		
SPOP	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.82395	0.176053	0.8798	<b>0.9385</b>	17, 32, 33]	
MECOM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.134158	0.9091	<b>0.0462</b>	17, 32, 33]	
METTL14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.9091	<b>0.0462</b>	17, 32, 33]	
SGK1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.9692	17, 32, 33]		
TNFAIP6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17, 32, 33]	
SOX17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17, 32, 33]

(§) p-values <0.05, as derived via Fisher's Exact test are shown in bold text; p-values are not adjusted for FDR [32, 33]

Statistically significant (§) trend towards co-occurrence of mutations

Statistically significant (§) trend towards mutual exclusivity of mutations

No events recorded for one or both genes