

Supplementary File 3. Proximity Matrix for AR gene-signature. Each gene has an absolute Pearson correlation coefficient (|CC|) of &gt; 0.6 with AR expression (p&lt;0.001)

Genes	AR	AMB	RHOH	BUB1	CRAT	CTNND2	SGSM3	DONSON	F7	FGFR4	DALRD3	GALNT2	GART	GLS	IGHM	EHBP1	MXD4	MGAT5	ZNF205-AS1	MVK	NAB1	NFATC4	PCDH4	SPDEF	PGM1	PCALM	PRNP	PYGO1	STIL	SLC22A1	SLC9A1	TOP2A	TP53TG1	TTK	USP1	PATZ1	
AR	1.000	.603	.643	-.609	.601	.651	.638	-.681	.716	.634	.616	-.630	-.609	-.613	.612	-.654	.661	.632	.699	.601	-.644	.681	.621	.670	-.628	-.649	-.750	.633	-.612	.645	.614	-.612	.636	-.662	-.642	-.709	
AMB	.603	1.000	.417	-.440	.334	.397	.531	-.441	.396	.246	.230	-.531	-.332	-.328	.534	-.505	.381	.646	.523	.328	-.442	.402	.507	.398	-.464	-.430	-.372	.465	-.376	.452	.458	-.330	.406	-.459	-.507	.274	
RHOH	.643	.417	1.000	-.827	.461	.481	.557	-.637	.604	.521	.610	-.495	-.724	-.760	.278	-.554	.431	.379	.451	.525	-.486	.502	.386	.809	-.588	-.478	-.587	.380	-.673	.471	.548	-.442	.616	-.622	-.564	.557	
BUB1	-.609	-.440	-.827	1.000	-.346	-.484	-.580	.544	-.486	-.462	-.571	.503	.672	.727	-.346	.585	-.430	-.429	-.507	-.590	.502	-.431	-.268	-.785	.573	.413	.497	-.392	.749	-.556	-.639	.498	-.702	.747	.653	-.487	
CRAT	.601	.334	.461	-.346	1.000	.379	.582	-.354	.433	.328	.493	-.398	-.363	-.486	.470	-.535	.351	.466	.476	.356	-.521	.526	.357	.473	-.120	-.464	-.434	.350	-.374	.509	.299	-.300	.347	-.356	-.352	.586	
CTNND2	.651	.397	.481	-.484	.379	1.000	.464	-.537	.592	.423	.416	-.707	-.621	-.637	-.572	.402	-.556	.533	.371	.552	.386	-.520	-.547	.367	.590	-.385	-.541	-.598	.380	-.468	.268	.433	-.313	.485	-.517	-.508	.387
SGSM3	.638	.531	.557	-.580	.582	.464	1.000	-.510	.508	.538	.406	-.508	-.480	-.569	.477	-.690	.484	.555	.501	.519	-.460	.518	.309	.608	-.398	-.524	-.426	.312	-.509	.516	.505	-.474	.467	-.480	-.534	.563	
DONSON	-.681	-.441	-.637	.544	-.354	-.537	-.510	1.000	-.642	-.558	-.472	.491	.729	.556	-.260	.640	-.601	-.414	-.570	-.473	.464	-.477	-.419	-.631	.595	.670	.586	-.509	.579	-.347	-.344	.438	-.607	.529	.627	-.507	
F7	.716	.396	.604	-.486	.433	.592	.508	-.642	1.000	.653	.455	-.517	-.546	-.586	.440	-.639	.574	.504	.539	.521	-.419	.373	.498	.624	-.611	-.619	-.688	.455	-.503	.395	.409	-.444	.511	-.535	-.615	.518	
FGFR4	.634	.246	.521	-.462	.328	.423	.538	-.558	.653	1.000	.502	-.294	-.450	-.616	.272	-.471	.550	.303	.384	.461	-.477	.281	.276	.644	-.458	-.484	-.635	.204	-.418	.347	.321	-.438	.570	-.352	-.494	.461	
DALRD3	.616	.230	.610	-.571	-.493	.416	-.406	-.472	.455	.502	1.000	-.374	-.539	-.613	.379	-.368	.509	.425	.452	.510	-.552	.406	.416	.596	-.462	-.582	-.634	.310	-.532	.544	.295	-.439	.580	-.536	-.483	.474	
GALNT2	-.630	-.531	-.495	.503	-.398	-.707	-.508	.491	-.517	-.294	-.374	1.000	.577	.574	-.559	-.566	-.410	-.482	-.660	-.477	.485	-.347	-.301	-.608	.390	.569	.592	-.449	.367	-.352	-.341	.233	-.467	.620	.442	-.475	
GART	-.609	-.332	-.724	.672	-.363	-.621	-.480	.729	-.546	-.450	-.539	.577	1.000	.719	-.305	.648	-.429	-.411	-.556	-.506	.516	-.329	-.244	-.738	.548	.660	.629	-.435	.645	-.358	-.408	.288	-.642	.570	.655	-.512	
GLS	-.613	-.328	-.760	.727	-.486	-.572	-.569	.556	-.586	-.616	-.613	.574	.719	1.000	-.329	.692	-.440	-.415	-.595	-.549	.617	-.363	-.275	-.827	.463	.560	.681	-.277	.573	-.379	-.489	.279	-.684	.592	.562	-.625	
IGHM	.612	.534	.278	-.346	.402	.402	.477	-.260	.440	.272	.379	-.559	-.305	-.329	1.000	-.518	.381	.687	.561	.348	-.436	.467	.489	.392	-.382	-.532	-.382	.646	-.474	.517	.258	-.306	.373	-.521	-.580	.352	
EHBP1	-.654	-.505	-.554	.585	-.535	-.596	-.690	.640	-.639	-.471	-.368	-.566	.648	.692	-.518	1.000	-.503	-.641	-.638	-.585	.449	-.500	-.432	-.636	.667	.560	.603	-.462	-.466	.355	-.539	.586	.625	-.566	-.566		
MXD4	.661	.381	.431	-.430	.351	.533	.484	-.601	.574	.550	.509	-.410	-.429	-.440	.381	-.503	1.000	.379	.390	.482	-.535	.475	.381	.500	-.518	-.616	-.575	.271	-.426	.389	.235	-.327	.434	-.445	-.519	.450	
MGAT5	.632	.646	.379	-.429	.466	.371	.555	-.414	.504	.303	.425	-.482	-.411	-.415	.687	-.641	.379	1.000	.619	.435	-.618	.508	.510	.457	-.463	-.684	-.466	.641	-.497	.590	.408	-.369	.375	-.559	-.628	.497	
ZNF205-AS1	.699	.523	.451	-.507	.476	.552	.501	-.570	.539	.384	.452	-.660	-.556	-.595	.561	-.638	.390	.619	1.000	.342	-.518	.512	.520	.467	-.444	-.521	-.564	.592	-.524	.455	.444	-.285	.555	-.631	-.542	.487	
MVK	.601	.328	.525	-.590	.356	.366	.519	-.473	.521	.461	.510	-.477	-.506	-.549	.348	-.585	.482	.435	.342	1.000	-.424	.204	.107	.613	-.485	-.565	.293	-.348	-.411	.466	-.436	.620	-.487	-.455	.559		
NAB1	-.644	-.442	-.486	.502	-.521	-.520	-.460	.464	-.419	-.477	-.552	.485	.516	.617	-.436	.449	-.535	-.618	-.518	1.000	-.424	1.000	-.432	-.497	-.628	.389	.575	.565	-.402	.425	-.463	-.372	.297	-.414	.541	.527	-.595
NFATC4	.681	.402	.502	-.431	.526	.347	.518	-.477	.373	.281	.406	-.347	-.329	-.363	.467	-.500	.475	.508	.512	.204	1.000	-.432	.642	.401	-.411	-.471	-.361	.575	-.617	.644	.469	-.432	.277	-.544	-.477	.627	
PCDH4	.621	.507	.386	-.268	.357	.367	.309	-.419	.498	.276	.416	-.301	-.244	-.275	.489	-.323	.381	.510	.520	.107	1.000	-.497	.642	.307	-.523	-.349	-.443	.562	-.527	.511	.398	-.404	.273	-.545	-.538	.456	
SPDEF	.670	.398	.809	-.785	.473	.590	.608	-.631	.624	.644	.596	-.608	-.738	-.827	.392	-.636	.500	.457	.467	.613	1.000	-.628	.401	.307	1.000	-.554	-.582	-.710	.383	-.652	.421	.462	-.383	.712	-.628	-.669	.631
PGM1	-.628	-.464	-.588	.573	-.120	-.385	-.398	.595	-.611	-.468	-.492	.390	.548	.463	-.383	.522	-.518	-.463	-.444	-.573	.389	1.000	-.554	.536	.617	-.458	.567	-.373	-.478	.466	-.522	.646	.613	-.407	-.407		
PCALM	-.649	-.430	-.478	.413	-.464	-.541	-.524	.670	-.619	-.484	-.582	.569	.660	.560	-.532	-.562	-.616	-.684	-.521	-.485	.575	1.000	-.582	.536	1.000	.685	-.514	.513	-.413	-.185	.209	-.461	.509	.594	-.549		
PRNP	-.750	-.372	-.587	.497	-.434	-.598	-.426	.586	-.688	-.635	-.634	.592	.629	.681	-.382	.560	-.575	-.466	-.564	-.565	.565	1.000	-.710	.617	.685	1.000	-.452	.473	-.259	-.334	.341	-.614	.500	.518	-.662		
PYGO1	.633	.465	.380	-.392	.350	.380	.312	-.509	.455	.204	.310	-.449	-.435	-.277	.646	-.450	.271	.641	.592	.293	1.000	-.402	.575	.562	.383	-.458	-.514	-.452	1.000	-.566	.447	.346	-.409	.426	-.611	-.618	.443
STIL	-.612	-.376	-.673	.749	-.374	-.468	-.509	.579	-.503	-.418	-.532	.367	.645	.573	-.474	.603	-.426	-.497	-.524	-.348	.425	1.000	-.527	.567	.513	.473	-.566	1.000	-.596	-.596	-.451	.415	-.591	.764	.838	-.472	
SLC22A1	.645	.452	.471	-.596	.509	.268	.516	-.347	.395	.347	.544	-.352	-.358	-.379	.517	-.462	.389	.590	.455	.411	1.000	-.463	.644	.511	.421	-.413	-.259	.447	-.596	1.000	.519	-.475	.372	-.638	-.592	.516	
SLC9A1	.614	.458	.548	-.639	.299	.433	.505	-.344	.409	.321	.295	-.341	-.408	-.489	.258	-.465	.235	.408	.444	.466	1.000	-.372	.308	.482	-.478	-.185	-.334	.346	-.461	.519	1.000	-.585	.474	-.522	-.410	.532	
TOP2A	-.612	-.330	-.442	.498	-.300	-.313	-.474	.438	-.444	-.438	-.309	.233	.288	.279	-.306	.355	-.327	-.369	-.285	-.436	.297	1.000	-.432	-.404	-.383	.466	.209	.341	-.409	.415	-.475	-.585	1.000	-.538	.503	.406	-.475
TP53TG1	.636	.406	.616	-.702	.347	.485	.467	-.607	.511	.570	.580	-.467	-.642	-.684	.373	-.539	.434	.375	.555	.620	1.000	-.414	.277	.273	.712	-.522	-.461	-.614	.426	-.591	.372	.474	-.538	1.000	-.638	-.629	.506
TTK	-.662	-.459	-.622	.747	-.356	-.517	-.480	.529	-.535	-.352	-.536	.620	.570	.592	-.521	.586	-.445	-.559	-.631	-.487	1.000	-.544	-.545	.628	.646	.509	.500	-.611	.764	-.638	-.522	.503	-.638	1.000	.757	-.544	
USP1	-.642	-.507	-.564	.653	-.352	-.508	-.534	.627	-.615	-.494	-.483	.442	.655	.562	-.580	.625	-.519	-.628	-.542	-.455	1.000	-.477	-.538	.669	.613	.594	.518	-.592	-.410	.406	-.629	.757	1.000	-.463	-.463		
PATZ1	.709	.274	.557	-.487	.586	.387	.563	-.507	.518	.461	.474	-.475	-.512	-.625	-.352	-.566	.450	.497	.467	1.000	-.595	.627	.456	.631	-.407	-.662	-.443	-.472	.516	-.532	-.475	-.506	-.544	-.463	1.000		