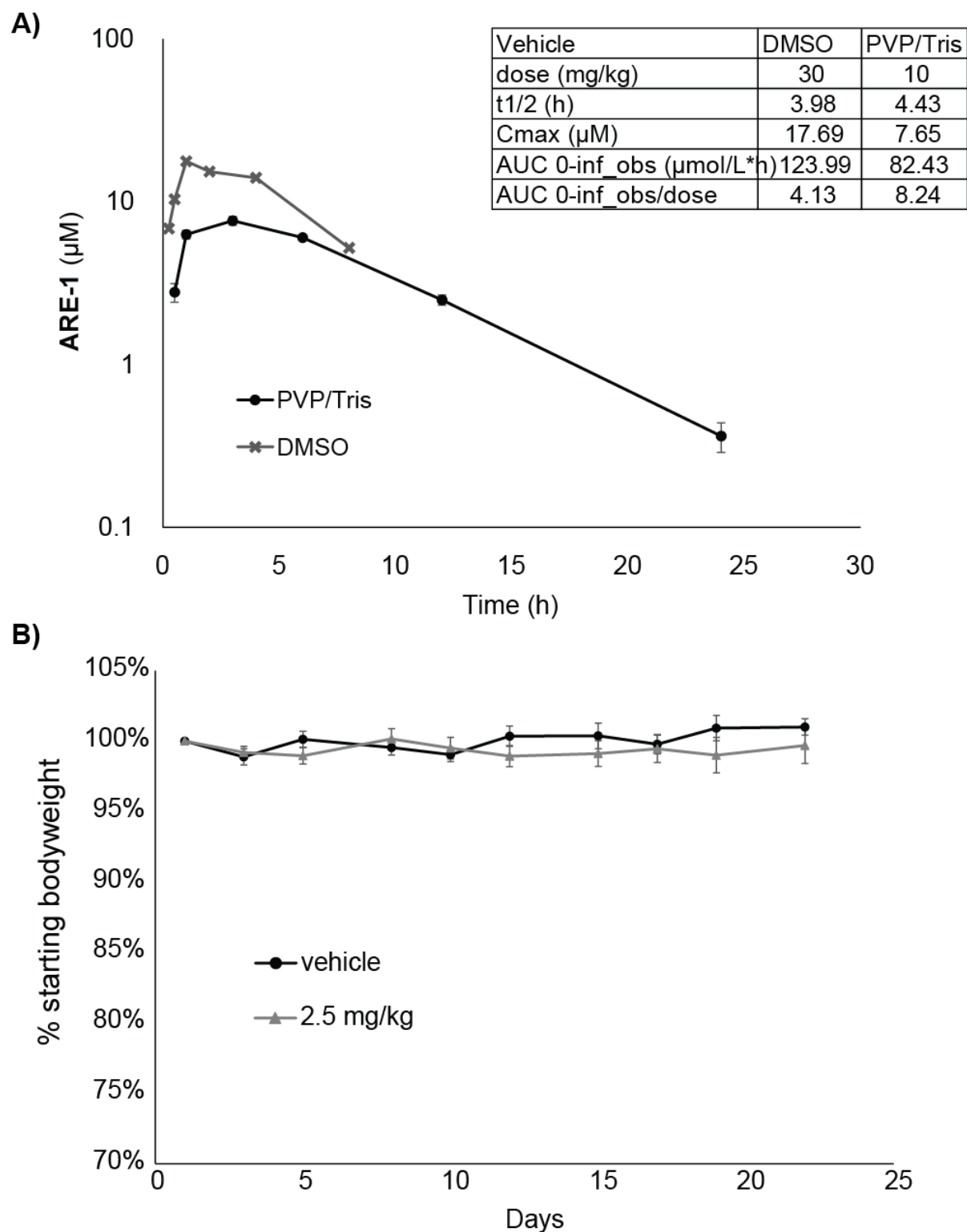
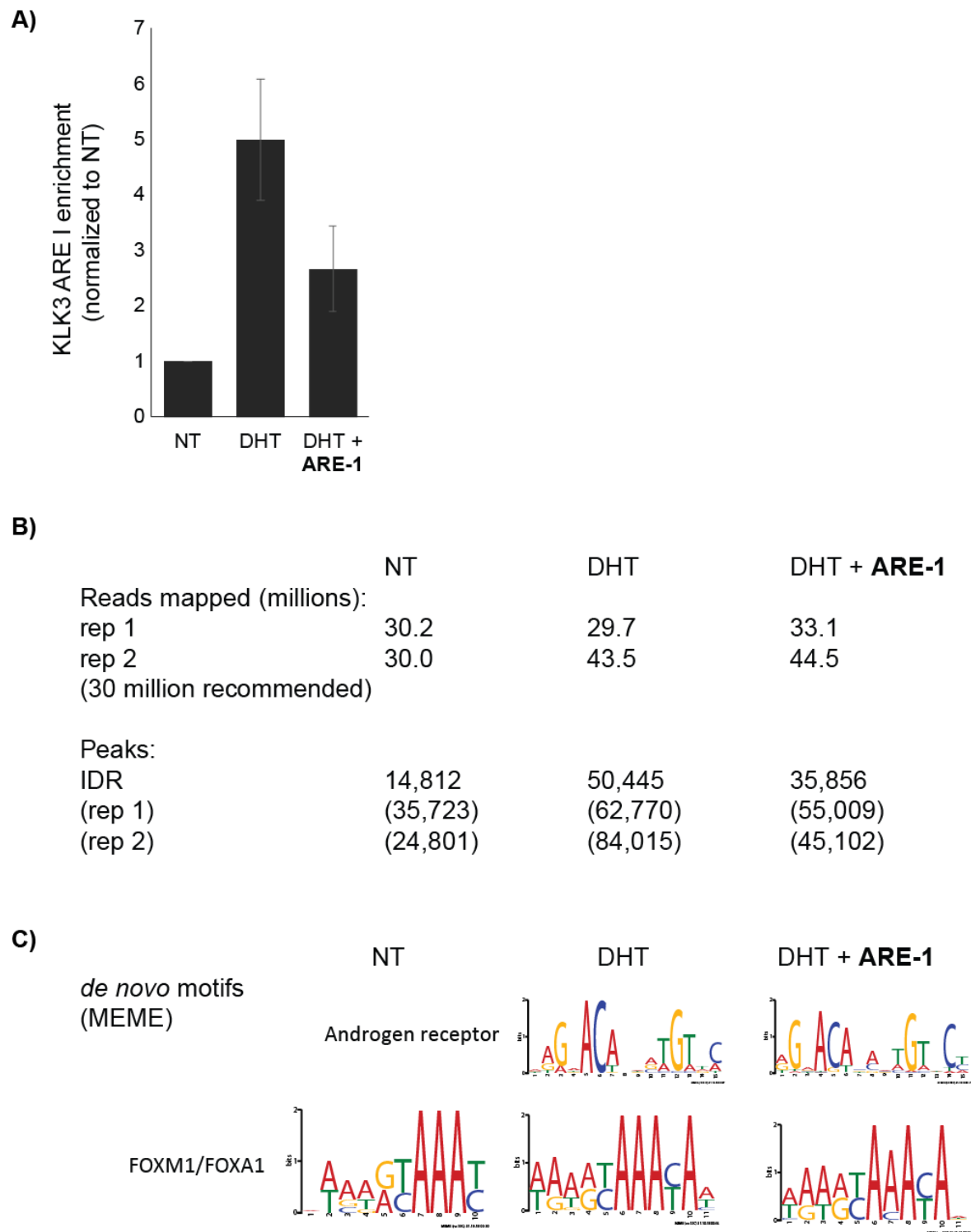


**Figure S1.** Chemical structure of **ARE-1-FITC**

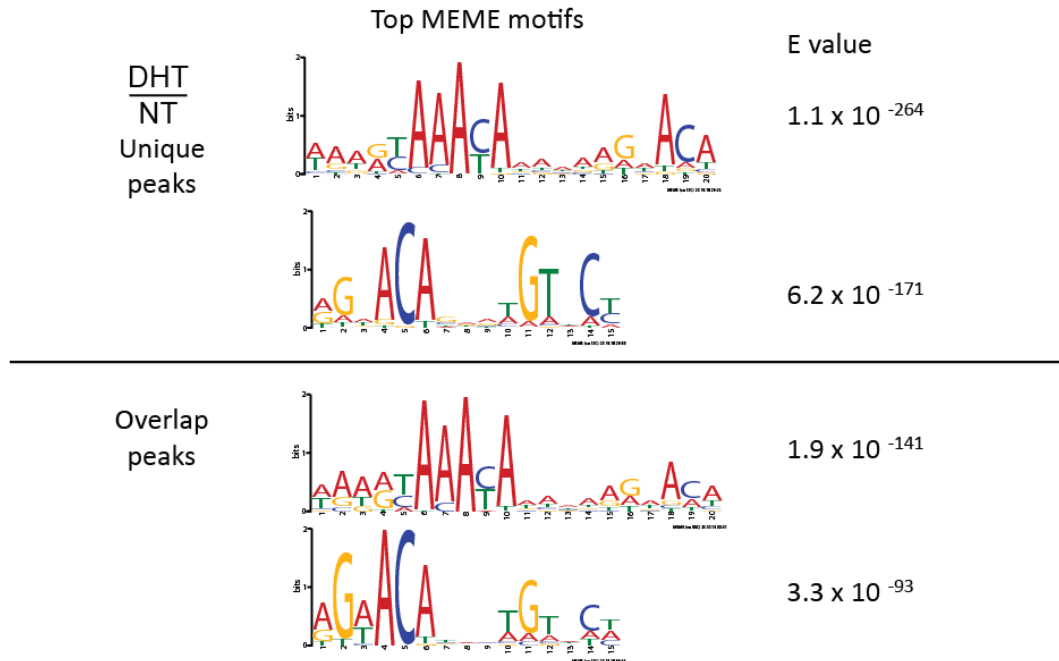


**Figure S2. A)** Pharmacokinetic analysis of **ARE-1** in PVP/Tris formulation compared to DMSO/saline formulation. **B)** Body weight changes of animals in LN95 xenograft experiment.



**Figure S3. A)** AR occupancy of KLK3 ARE I as determined by ChIP. **B)** Sequencing results from AR ChIP experiments of indicated conditions. **C)** *De novo* motif discovery by MEME of reproducible peaks as determined by IDR analysis.

A)



B)

DHT/NT unique				Overlap			
A	C	G	T	A	C	G	T
0.426237	0.000000	0.405094	0.168669	0.632749	0.000000	0.270216	0.097035
0.137914	0.017780	0.756367	0.087938	0.000000	0.000000	0.923854	0.076146
0.398606	0.093224	0.192456	0.315714	0.578841	0.057278	0.000000	0.363881
0.894762	0.005766	0.068957	0.030514	1.000000	0.000000	0.000000	0.000000
0.000000	0.974291	0.025709	0.000000	0.000000	1.000000	0.000000	0.000000
0.913023	0.003364	0.002643	0.080971	0.884097	0.000000	0.027628	0.088275
0.142960	0.227775	0.481019	0.148246	0.134097	0.237871	0.216981	0.411051
0.414224	0.143681	0.253484	0.188611	0.333558	0.201482	0.165094	0.299865
0.420471	0.140317	0.302739	0.136473	0.281671	0.327493	0.145553	0.245283
0.265738	0.160500	0.028111	0.545651	0.274259	0.062668	0.047170	0.615903
0.063671	0.010332	0.925997	0.000000	0.125337	0.066712	0.807951	0.000000
0.135031	0.035560	0.032436	0.796973	0.210916	0.099057	0.068059	0.621968
0.225613	0.181643	0.194858	0.397886	0.377358	0.194744	0.152965	0.274933
0.120855	0.849351	0.000000	0.029793	0.195418	0.645553	0.000000	0.159030
0.135992	0.364969	0.007448	0.491591	0.371968	0.229111	0.000000	0.398922

**Figure S4. A)** Motif analysis of differentially bound sites using MEME-ChIP. Top two results are shown for peaks unique to DHT/NT and overlapping between DHT/NT and DHT/DHTP. **B)** Motif matrix of Androgen response element motif logo presented in **(A)**. Positions 1 and 3 are highlighted in red.