

Supplementary Table 4. Single-sample Gene Set Enrichment Analysis (ssGSEA) of changes in global gene expression between TXA2 analogue U46619-treated and vehicle-treated WT and Arhgef1 KO CD8⁺ T cells. Significantly differentially enriched C7 Immunologic signature gene sets (FDR < 0.2, |FC| > 1.5) are shown. Data are representative of three to four biological replicates per group.

Name	WT d5 Veh 1	WT d5 Veh 2	WT d5 Veh 3	WT d5 Veh 4	KO d5 Veh 1	KO d5 Veh 2	KO d5 Veh 3	WT d5 U46619_1	WT d5 U46619_2	WT d5 U46619_3	WT d5 U46619_4	KO d5 U46619_1	KO d5 U46619_2	KO d5 U46619_3	KO d5 U46619_4
GSE10239_NAIVE_VS_DAY4.5_EFF_CD8_TCELL	-348.1712476	-335.5426461	-331.2258643	-167.4147386	-148.5431295	-150.7330766	-542.2142078	-522.4223564	-579.02554	-241.018499	-267.7153831	-216.1395514	-236.8470347		
GSE14864_UNTREATED_VS_CSF1_PAM3CYS_IN_MAC	326.2440455	408.929295	366.3771236	357.4918193	425.4558723	371.0188743	148.1688556	206.7613406	244.6445902	191.4363467	248.5219985	503.3608445	481.801709	513.7473609	497.6450545
GSE11924_THF_VS_TH1_CD4_TCELL	-709.4872668	-583.0739503	-611.8055665	-554.3282935	-546.3494049	-582.4130208	-435.5812787	-866.3523542	-800.856941	-918.9551558	-873.0370914	-474.2982689	-444.6006332	-425.856667	-509.5881892
GSE11924_TH1_VS_TH17_CD4_TCELL_UP	720.7867573	682.750485	641.4248109	736.7092133	784.9698627	804.6408867	574.9522589	341.5936616	392.9654964	702.8321665	708.1408572	755.9071457	724.0886556		
GSE1460_INTRAETHYMIC_T_PROGENITOR_VS_CD4_THYMOCYTE	-1688.394502	-1693.502135	-1673.422016	-1623.288389	-1710.733163	-1762.825521	-1920.317076	-1069.094542	-1170.210455	-1042.461318	-1160.807722	-1174.388734	-1784.596095	-1764.378462	-1835.134799
GSE15930_NAIVE_VS_24H_IN_VITRO_STIM_IL12_CD8_TCELL_UP	259.1418037	285.1595521	310.4469479	289.0797057	304.2897143	334.1285721	376.7263785	793.94536	81.9995989	166.795388	119.3636133	379.428215	319.708409	380.323859	365.7663219
GSE17580_TREG_VS_TEFF	-125.3541276	-247.2841624	-277.9605688	-391.7123186	-415.7387852	-403.9690491	-425.7808846	-157.4760872	-177.6573637	-149.5841964	-132.0342352	-451.9517421	-443.9567475	-486.7536361	-471.391931
GSE17974_0H_VS_2H_IN_VITRO_ACT_CD4_TCELL_UP	1.477790208	45.2399606	6.24492941	66.9126264	78.9116524	82.2035687	125.0871021	-275.7871586	-233.0245631	-240.8070483	-93.02507692	-104.486659	93.02507692	121.7588656	121.7588656
GSE17974_0H_VS_4H_IN_VITRO_ACT_CD4_TCELL_UP	51.7705839	-473.5309885	-513.9827062	-438.1186198	-444.2454778	-430.4613587	-415.0257486	-668.3455514	-643.2664289	-446.5441734	-426.8618561	-446.5441734	-426.8618561	-403.1799865	
GSE17974_CTRL_VS_ACT_IL4_AND_ANT1_IL12_12H_CD4_TCELL_UP	7529493237	-84.34916392	-100.571404	-115.4525722	-172.9032225	-112.8333257	-35.00202404	-396.5205176	-383.971971	-435.2407583	-405.7986863	-103.5263049	-64.65366743	-131.4985656	-139.5146612
GSE2706_2H_VS_8H_R848_STIM_CD8_UP	-412.3491894	-438.3345301	-471.4017391	-438.8411243	-513.2054554	-471.4017391	-374.6052448	-702.9294504	-714.4691437	-668.2345974	-449.7528393	-449.7528393	-68.0601676	-455.3400647	-445.7553958
GSE30083_SP1_VS_SP4_THYMOCYTE_UP	500.2600947	423.796332	432.0836438	425.5409189	383.8933513	374.0131084	371.0890642	579.5417713	527.0781598	534.1149703	537.8979122	357.8124152	361.6789329	319.2021486	341.6566269
GSE30962_PRIMARY_VS_SECONDARY_ACUTE_LCMV_INF_CD8_TCELL_DN	-68.86678702	-110.3689531	-110.368305	-93.1394438	-74.01604998	-33.80828252	-19.744168006	-283.8005515	-288.5671737	-323.2052167	-334.6605178	-56.40189146	-47.35685849	-78.02987106	-90.43236619
GSE30962_ACUTE_VS_CHRONIC_LCMV_PRIMARY_INF_CD8_TCELL	-1412.360156	-1191.15719	-1197.305296	-1019.428421	-958.9873054	-1082.210766	-964.5649192	-1603.722616	-1440.769308	-1562.170994	-934.0686035	-945.6521606	-786.0463669	-872.0188672	
GSE30962_ACUTE_VS_CHRONIC_LCMV_PRIMARY_INF_CD8_TCELL_UP	1068.877282	1228.95854	1224.486034	1330.547758	1341.096333	1288.956084	1404.957892	863.485275	976.1577983	831.1900438	885.0777255	1391.901713	1396.318322	1518.847023	1421.911649
GSE360_L1_MAJOR_VS_T_GONDI_DC	350.0574621	398.7437702	405.505663	359.3212807	555.8493663	566.7399128	578.3420384	39.9327944	100.0622081	71.1149549	465.582284	481.1984994	557.4068306	476.9742023	
GSE360_L1_MAJOR_VS_T_GONDI_DC	-263.2822458	-235.3037107	-235.4250129	-219.1350935	-145.819851	-189.8526366	-129.5970603	-412.8879065	-355.466631	-408.3514149	-416.6219106	-417.7620841	-166.9027073	-108.231362	-127.2152525
GSE36392_TYPE_2_MYELOID_VS_EOSINOPHIL_IL25_TREATED_LUNG_DN	504.7143608	530.2329269	497.9832373	517.789325	513.9664832	611.0472153	236.1337798	267.8842136	271.1384121	274.2850245	565.7249813	522.980093	542.757199	562.70678	
GSE36392_TYPE_2_MYELOID_VS_NEUTROPHIL_IL25_TREATED_LUNG_UP	343.8458466	280.1482939	259.1838155	290.3060302	272.4658179	349.0060218	427.6753279	-116.4109646	-31.6467344	-84.4507139	-32.13034108	365.182437	352.1041528	303.2153067	387.4490952
GSE36476_CTRL_VS_TSS1_ACT_72H_MEMORY_CD4_TCELL_YOUNG_UP	743.3800911	740.5455447	729.7124566	715.3939258	720.9824248	778.8305664	869.3134308	459.3351336	452.398679	477.1109742	764.3157455	616.3517455	622.3025068	805.0859877	
GSE36476_CTRL_VS_TSS1_ACT_16H_MEMORY_CD4_TCELL_OLD_UP	462.8275658	578.6388357	533.8221045	620.0818924	617.1180136	655.7649474	768.9904813	152.4649485	247.6299594	188.5168033	769.1063797	760.2445031	726.168248	717.0502864	
GSE36476_CTRL_VS_TSS1_ACT_40H_MEMORY_CD4_TCELL_OLD_UP	53.56033813	104.5469337	103.7428406	53.53062452	171.7249997	182.0579483	733.0935472	-302.225903	-249.4664655	-211.3563431	-128.008887	237.4746388	307.4897437	232.3787412	243.877183
GSE3982_DC_VS_NEUTROPHIL	63.0372125	703.94767921	645.9794479	653.0172118	644.3639897	519.819455	1084.556516	978.1904377	981.2244243	584.659269	581.2244243	584.659269	505.0741144		
GSE4760_CTRL_VS_TGFB_TREATED_ACT_FOXP3_MUT_TCONV	54.56054054	-114.7569035	-82.85094508	-141.5155828	41.0089487	98.36834478	164.6652475	-439.944111	-432.4576043	-360.1319562	-438.6979376	76.03667862	77.50802433	9.078990034	45.8259975
GSE4760_WT_VS_FOXP3_HET_ACT_WITH_TGFB_TCONV_UP	790.7837928	912.6634686	875.3615251	1148.446362	1105.628755	1244.709771	364.323987	526.839678	526.839678	465.0142822	1103.254698	1225.017353	1215.854263	1242.914263	
GSE4760_WT_VS_FOXP3_HET_ACT_WITH_TGFB_TCONV_UP	222.158615	304.5224482	281.8716609	319.0229099	463.0854294	449.834216	547.8126943	49.28517772	88.48141916	61.97679801	99.96957781	47.81878761	54.7687901	467.7008378	515.250496
GSE7852_TREG_VS_TCONV	988.7263383	584.9336821	614.2110997	513.5734323	325.9315518	448.3805211	347.744327	1053.203162	844.468154	1055.103514	186.8608069	188.7951563	263.4237831	117.4969345	247.6750769
GSE369_S0CS3_KO_VS_IFNG_KO_LIVER	21.0926131	37.487187	114.6755751	184.1994408	241.5761239	226.2020549	218.2436009	-33.6362254	-49.43466328	-19.22175849	4.005444205	262.9879712	316.6884234	271.2473573	286.1678802
GSE411_UNSTIM_VS_480MIN_IL6_STIM_S0CS3_KO_MACROPHAGE_UP	763.077302	804.5889246	776.1894452	788.0681006	876.8886312	934.7556131	484.3594874	517.6115005	559.0291365	592.6805341	884.0114197	902.2007341	908.184177	908.184177	
GSE557_WT_VS_I_AB_KO_DC_UP	-173.3036497	-93.68697188	-85.7908133	-124.5060038	-116.7459645	-101.0417326	-75.7112766	-231.2705497	-284.0827369	-267.1788789	-90.3723769	-82.47706927	-48.35959309	-33.3478827	
GSE557_WT_VS_I_AB_KO_DC_UP	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	129.1616767	
GSE2770_UNTREATED_VS_ACT_CD4_TCELL_2H	-1124.744936	-1124.36086	-1180.036962	-115.695095	-113.179697	-110.827492	-985.5081188	-1761.149575	-1666.274524	-1137.278826	-1086.071415	-1090.825495	-1050.220068		
GSE2770_IL12_AND_TGFB_VS_IL4_TREATED_ACT_CD4_TCELL_48H_UP	831.2818657	905.4963115	823.9357234	865.3139132	844.1998653	850.8590209	989.4611623	522.6613878	558.7652357	511.0052414	591.9962971	857.2932963	905.9672215	976.7960575	924.048564
GSE2770_UNTREATED_VS_ACT_CD4_TCELL_48H_DN	-113.8918017	-210.5722065	-214.9380256	-237.9603559	-283.0176991	-208.9289044	-169.4390928	-460.8363236	-461.377323	-449.9741182	-264.2986652	-108.7271107	-266.5130437	-225.5907908	
GSE3039_CD4_TCELL_VS_B2_BCELL_UP	-543.7337538	-518.0046482	-538.4158939	-530.4470082	-440.2176349	-417.0212285	-384.735112	-829.391951	-750.8389554	-760.2694379	-771.2403435	-413.5457404	-370.3767137	-413.817002	-396.1407232
GSE5589_LPS_VS_LPS_AND_IL10_STIM_IL6_KO_MACROPHAGE_180MIN	177.674548	-651.1780998	-676.5510752	-604.167655	-569.1929176	-598.6094829	-511.045534	-92.8616335	-973.5046057	-625.9269422	-569.5891433	-530.5101855	-569.739833		
GSE6875_TCONV_VS_FOXP3_KO_TREG_UP	818.0545515	825.03117	854.105649	864.1225147	890.0025441	889.2902848	925.2508622	532.2578576	603.0283615	597.1615807	605.5293915	960.6372886	907.5169042	931.7263241	923.2026497
GSE7548_NAIVE_VS_DAY28_PCC_IMMUNIZATION_CD4_TCELL_DN	98.56804721	927.44565931	897.1546167	872.1852983	905.0479118	765.525082	652.1066373	1038.36423	985.2789407	1009.26148	937.8877785	962.3328313	671.7001753	645.830769	603.0656708
GSE9239_CTRL_VS_TNF_INHIBITOR_TREATED_DC_UP	75.8625737	96.54910216	84.02856506	136.3855261	113.4521091	135.4776021	139.076871	-90.7671868	-90.7671868	-105.1056433	-120.3737887	141.8763382	154.8688447	181.6113184	
GSE10273_LOW_IL7_VS_HIGH_IL7_AND_IRF4_IN_IRF4_8_NULL_PRE_BCELL	844.4227464	435.960858	516.6461472	455.9527059	455.5922026	395.8855324	362.2487811	730.155142	710.1549421	679.1663195	678.8898136	437.3507758	453.7941495	389.988638	419.0013563
GSE10273_LOW_IL7_VS_HIGH_IL7_AND_IRF4_IN_IRF4_8_NULL_PRE_BCELL	-592.3505051	-687.3229586	-706.6240826	-768.310531	-724.0083307	-702.8564259	-744.5761154	-459.1832246	-474.3818046	-502.3725021	-426.4387057	-748.8504693	-706.429523	-773.1447977	-771.5129993
GSE10500_ARTHRITIC_SYNOVIAL_FLUID_VS_HEALTHY_MACROPHAGE_DN	-111.3021018	-31.81697789	-28.00190743	14.5860668	-19.3246692	-54.4059668	17.06915656	-157.8705762	-159.0193411	-165.5235309	-200.3728433	7.92393005	28.75873651	44.97062318	
GSE14415_INDUCED_TREG_VS_FOXP3_KO_INDUCED_TREG_IL2_CULTURE	679.9897582	324.9073605	374.2924743	386.9613664	189.4355808	343.5814149	184.0490586	700.6893774	602.8190915	630.7130395	564.4188391	161.9174372	124.632392	59.42797727	183.7306793
GSE14415_INDUCED_TREG_VS_FOXP3_KO_INDUCED_TREG_IL2_CULTURE_DN	-62.36412048	138.933374	122.0254219	78.9128336	266.1484751	320.6282024	392.4278074	-407.5492993	-255.1806102	-336.1229438	-291.5534458	280.4744955	285.69889	412.5751131	296.9812162
GSE13547_WT_VS_ZFX_KO_BCELL_ANT1_IGM_STIM_12H_DN	652.9249109	685.7447939	665.8955171	692.3652513	855.3815181	818.6256519	882.8277118	482.309594	486.3519331	438.599611	446.9956911	829.0789851	812.2994214	884.5942766	859.4529342
GSE15330_MEGAKARYOCYTE_ERYTHROCYTE_VS_GNANULOCYTE_MONOCYTE_PROGENITOR	446.5592567	328.0605307	328.1121496	313.7184923	412.6447073	360.255029	405.0691022	-21.29822898	32.54475489	381.1923021					