

Network-driven proteogenomics unveils an aging-related imbalance in the olfactory I κ B alpha-NF κ B p65 complex functionality in Tg2576 Alzheimer's disease mouse model

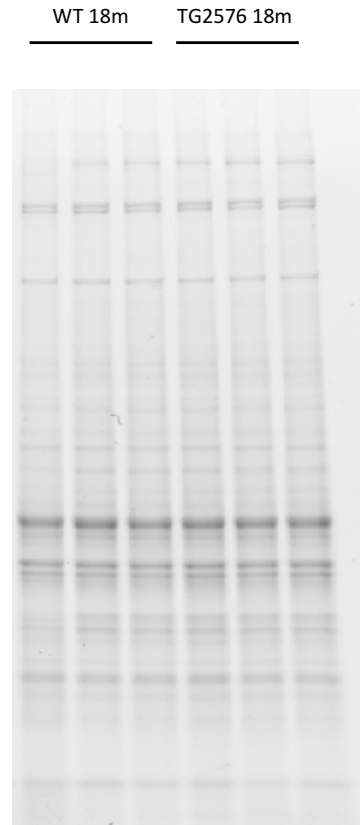
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- Table S5 -

**EQUAL LOADING CONTROL & QUANTITATION
(Figures 2, 4, 6, and 7)**

Figure 2a

Intensity values corresponding to **APP**. Western Blot



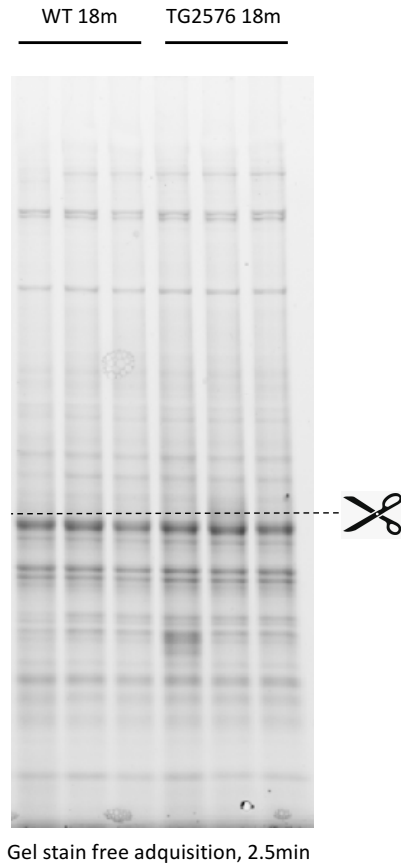
Gel stain free adquisition, 2.5min

		Volume (Intensity)				
	Samples	STAIN FREE	APP	APP/STAIN FREE		Fold of Control
WT 18 months	8673	20139803	19338	0.00096019	0.001139948	0.84230878
	8675	24335529	19316	0.00079374		0.69629199
	8681	21763363	36256	0.00166592		1.46139923
TG2576 18 months	8674	23776718	236082	0.00992912		8.71015654
	8676	20728806	176220	0.00850121		7.45754533
	8677	21905110	155232	0.00708657		6.21656969

		APP
WT 18 months	Mean	1
	SD	0.40619843
	n	3
	SEM	0.23451877
TG2576 18 months	Mean	7.46142385
	SD	1.24679795
	n	3
	SEM	0.71983913
	p value	0.00365567

Figure 4

Intensity values corresponding to pFAK, FAK, pERK and ERK. Western Blot



		Volume (Intensity)			pFAK/STAIN FREE		Fold of Control	FAK/STAIN FREE		Fold of Control
	Samples	STAIN FREE	pFAK	FAK						
WT 18 months	8673	26500464	106146	1333496	0.00400544	0.00366997	1.09140998	0.05031972	0.05741074	0.87648627
	8675	29346876	137826	2059600	0.00469645		1.27969668	0.07018123		1.22244093
	8681	24558732	56682	1270454	0.00230802		0.62889334	0.05173125		0.9010728
TG2576 18 months	8674	37941696	107496	2751466	0.00283319		0.77199295	0.07251827		1.26314814
	8676	32297508	113148	1985918	0.0035033		0.95458726	0.06148827		1.07102393
	8677	29815812	123516	2020555	0.00414263		1.1287931	0.0677679		1.18040465

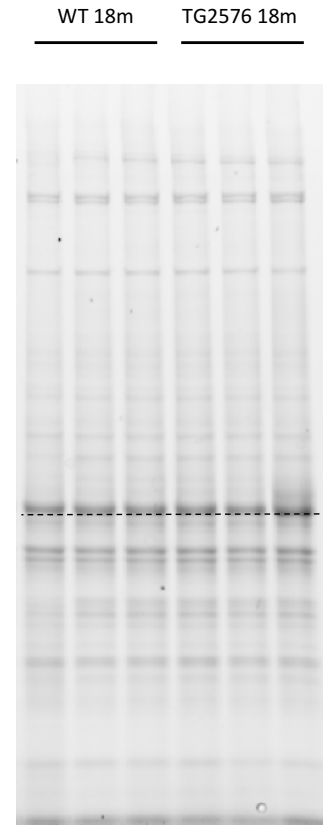
		pFAK	FAK
WT 18 months	Mean	1	1
	SD	0.33489265	0.19303134
	n	3	3
	SEM	0.19335036	0.1114467
TG2576 18 months	Mean	0.9517911	1.17152557
	SD	0.17841651	0.09636938
	n	3	3
	SEM	0.10300882	0.05563889
	p value	0.41986742	0.13201595

		Volume (Intensity)			pERK/STAIN FREE		Fold of Control	ERK/STAIN FREE		Fold of Control
	Samples	STAIN FREE	pERK	ERK						
WT 18 months	8673	26500464	1697472	2752902	0.06405443	0.0735962	0.87034967	0.10388128	0.10214968	1.01695153
	8675	29346876	3424212	3125020	0.11668063		1.58541658	0.10648561		1.04244681
	8681	24558732	983664	2359656	0.04005353		0.54423374	0.09608216		0.94060165
TG2576 18 months	8674	37941696	1461474	3564108	0.03851894		0.52338224	0.09393644		0.91959605
	8676	32297508	3068406	3856176	0.09500442		1.29088763	0.11939547		1.16882856
	8677	29815812	3571164	3594798	0.11977417		1.62745048	0.12056683		1.18029572

		pERK	ERK
WT 18 months	Mean	1	1
	SD	0.53256204	0.05299646
	n	3	3
	SEM	0.30747484	0.03059752
TG2576 18 months	Mean	1.14724011	1.08957344
	SD	0.56587775	0.14731636
	n	3	3
	SEM	0.32670967	0.08505314
	p value	0.37964307	0.20371266

Figure 4

Intensity values corresponding to pAKT, AKT, pP38 and P38. Western Blot



		Volume (Intensity)			pAKT/STAIN FREE		Fold of Control	AKT/STAIN FREE		Fold of Control
	Samples	STAIN FREE	pAKT	AKT						
WT 18 months	8673	23178317	1378507	3248905	0.05947399	0.08546237	0.69590849	0.14017001	0.17967727	0.78012101
	8675	22574958	1824551	3769220	0.0808219		0.94570158	0.16696465		0.92924748
	8681	19172586	2225769	4446068	0.11609123		1.35838993	0.23189715		1.29063151
TG2576 18 months	8674	23416079	2043659	4333340	0.08727588		1.02122001	0.18505831		1.02994836
	8676	20415527	2173942	4236411	0.10648474		1.24598386	0.20750926		1.15489992
	8677	25993166	2719679	4152925	0.10463054		1.22428781	0.15976988		0.88920473

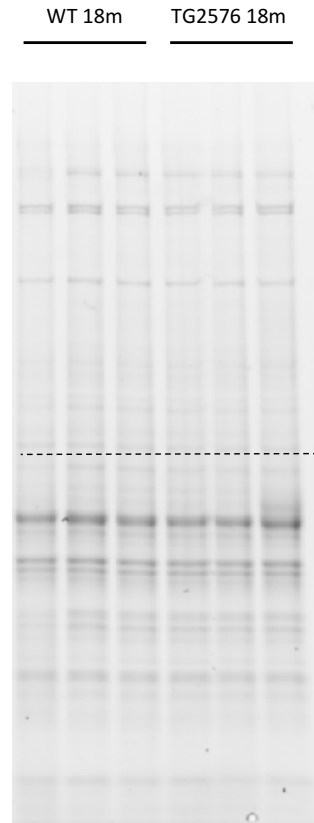
		pAKT	AKT
WT 18 months	Mean	1	1
	SD	0.33456188	0.26250654
	n	3	3
	SEM	0.19315939	0.15155822
TG2576 18 months	Mean	1.16383056	1.02468434
	SD	0.12397986	0.13292579
	n	3	3
	SEM	0.07157981	0.07674474
p value		0.24700508	0.4468967

		Volume (Intensity)			pP38/STAIN FREE		Fold of Control	P38/STAIN FREE		Fold of Control
	Samples	STAIN FREE	pP38	P38						
WT 18 months	8673	23178317	772711	527098	0.03333767	0.04580647	0.7277939	0.022741	0.04258387	0.53402844
	8675	22574958	861517	1064100	0.03816251		0.8331249	0.0471363		1.10690516
	8681	19172586	1263842	1109600	0.06591922		1.43908121	0.0578743		1.35906639
TG2576 18 months	8674	23416079	1017184	1218223	0.04343955		0.94832797	0.05202506		1.22170834
	8676	20415527	1005556	1172452	0.04925447		1.07527334	0.05742943		1.34861938
	8677	25993166	976106	1362775	0.03755241		0.81980585	0.0524282		1.23117531

		pP38	P38
WT 18 months	Mean	1	1
	SD	0.38388525	0.4227806
	n	3	3
	SEM	0.22163625	0.2440925
TG2576 18 months	Mean	0.94780239	1.26716768
	SD	0.12773456	0.07069788
	n	3	3
	SEM	0.07374758	0.04081744
p value		0.42027346	0.1940481

Figure 4

Intensity values corresponding to pPKC, PKC, pPDK1 and PDK1. Western Blot



	Samples	Volume (Intensity)			pPKC/STAIN FREE		Fold of Control	PKC/STAIN FREE		Fold of Control
		STAIN FREE	pPKC pan	PKC pan						
WT 18 months	8673	27021528	1911474	535644	0.070738931	0.09372204	0.75477367	0.01982286	0.02924261	0.67787587
	8675	29219508	3888630	1285200	0.13308335		1.41997917	0.04398431		1.50411711
	8681	30425328	2353212	727794	0.07734385		0.82524716	0.02392066		0.81800703
TG2576 18 months	8674	31374720	2650914	839466	0.084492037		0.90151723	0.02675613		0.91497048
	8676	26838468	5088312	1215126	0.189590255		2.02289929	0.04527554		1.54827259
	8677	35575308	4037850	931518	0.113501477		1.21104356	0.0261844		0.89541923

		pPKC pan	PKC pan
WT 18 months	Mean	1	1
	SD	0.36541553	0.44216482
	n	3	3
	SEM	0.21097275	0.25528398
TG2576 18 months	Mean	1.37848669	1.1195541
	SD	0.57913931	0.37140977
	n	3	3
	SEM	0.33436623	0.21443353
	p value	0.20092239	0.36926717

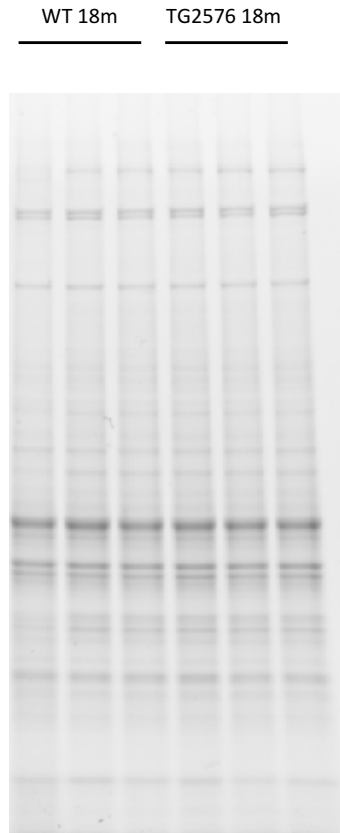
	Samples	Volume (Intensity)			pPDK1/STAIN FREE		Fold of Control	PDK1/STAIN FREE		Fold of Control
		STAIN FREE	pPDK1	PDK1						
WT 18 months	8673	27021528	2679534	462672	0.099162934	0.14164278	0.70009167	0.01712235	0.02620342	0.65343935
	8675	29219508	5007744	945540	0.171383584		1.20997045	0.03235989		1.23494886
	8681	30425328	4697118	886230	0.154381836		1.08993788	0.02912803		1.11161179
TG2576 18 months	8674	31374720	3793500	741366	0.120909446		0.85362234	0.02362941		0.9017679
	8676	26838468	3610962	690822	0.134544267		0.94988437	0.02573999		0.98231416
	8677	35575308	3336282	520956	0.093780832		0.66209396	0.01464375		0.55884883

		pPDK1	PDK1
WT 18 months	Mean	1	1
	SD	0.26657214	0.30640043
	n	3	3
	SEM	0.1539055	0.17690037
TG2576 18 months	Mean	0.82186689	0.8143103
	SD	0.14649961	0.22487185
	n	3	3
	SEM	0.08458159	0.12982982
	p value	0.19139064	0.22452876

Figure 4

Intensity values corresponding to pMEK and MEK.

Western Blot



Gel stain free adquisition, 2.5min

	Samples	Volume (Intensity)			pMEK/STAIN FREE		Fold of Control	MEK/STAIN FREE		Fold of Control
		STAIN FREE	pMEK	MEK						
WT 18 months	8673	20139803	124146	2344410	0.006164211	0.00864722	0.71285479	0.1164068	0.13934368	0.83539347
	8675	24335529	217892	3457430	0.008953658		1.0354379	0.14207334		1.01958945
	8681	21763363	235562	3472364	0.010823787		1.25170731	0.15955089		1.14501708
TG2576 18 months	8674	23776718	165756	3835644	0.006971357		0.80619651	0.16131932		1.15770821
	8676	20728806	328187	3930967	0.015832412		1.8309254	0.18963789		1.36093643
	8677	21905110	310935	3412077	0.014194633		1.64152588	0.15576626		1.11785664

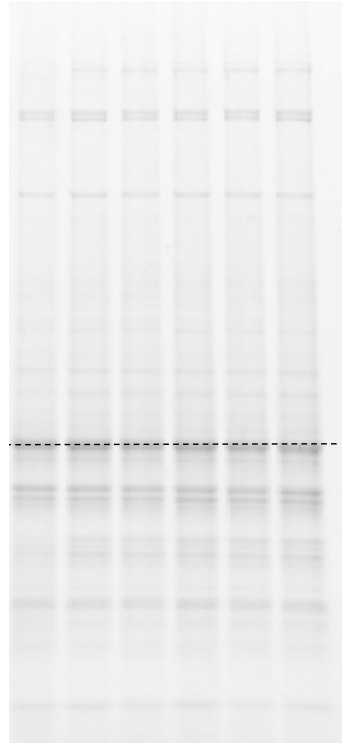
		pMEK	MEK
WT 18 months	Mean	1	1
	SD	0.27116857	0.15573858
	n	3	3
	SEM	0.15655925	0.08991571
TG2576 18 months	Mean	1.42621593	1.21216709
	SD	0.54523949	0.13036975
	n	3	3
	SEM	0.31479417	0.07526901
	p value	0.15697984	0.07343564

Figure 4

Intensity values corresponding to pSEK and SEK.

Western Blot

WT 18m TG2576 18m



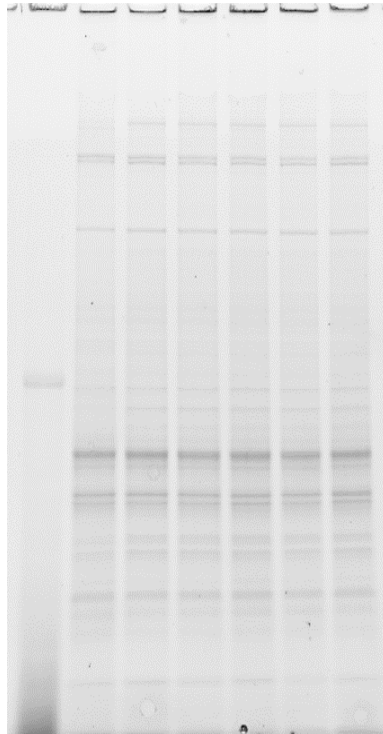
Gel stain free adquisition, 2.5min

	Samples	Volume (Intensity)			pSEK/STAIN FREE		Fold of Control	SEK/STAIN FREE		Fold of Control
		STAIN FREE	pSEK	SEK						
WT 18 months	8673	15393060	411825	1565118	0.02675394	0.03171491	0.84357621	0.10167686	0.12173493	0.83523163
	8675	18148428	706914	2354004	0.038951803		1.22818602	0.129708424		1.06549886
	8681	16967304	499500	2270556	0.029438973		0.92823776	0.133819492		1.09926951
TG2576 18 months	8674	18114156	661820	2843802	0.036536066		1.15201561	0.156993348		1.28963276
	8676	18674388	760986	2439090	0.040750251		1.28489272	0.130611509		1.07291732
	8677	19698408	995346	2917480	0.050529261		1.59323386	0.1481074		1.21663853

		pSEK	SEK
WT 18 months	Mean	1	1
	SD	0.20209785	0.14368917
	n	3	3
	SEM	0.11668125	0.08295898
TG2576 18 months	Mean	1.34338073	1.19306287
	SD	0.22634933	0.11026448
	n	3	3
	SEM	0.13068285	0.06366123
	p value	0.0612272	0.07168272

Figure 6b

Intensity values corresponding to **CREB1**. Western Blot



Gel stain free adquisition, 2.5min

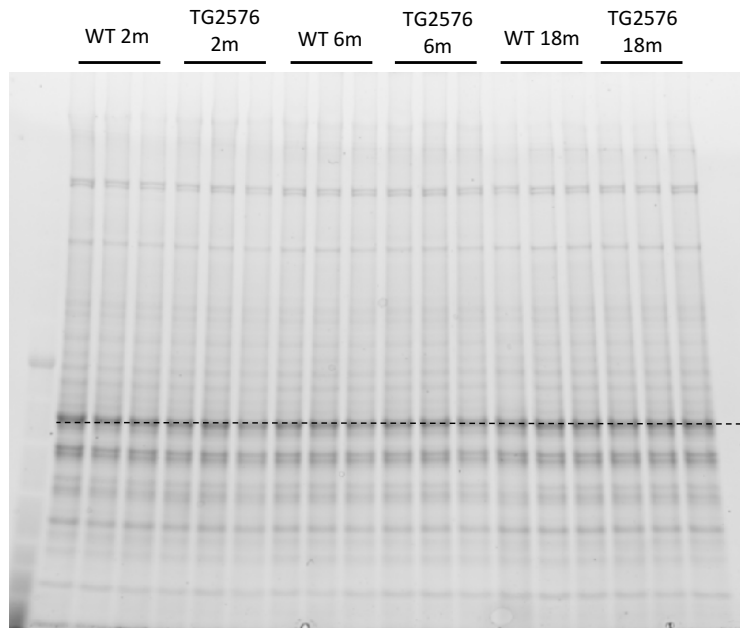
	Nombre Muestras	Volume (Intensity)		CREB1/STAIN FREE		Fold of Control
		STAIN FREE	CREB1			
WT 18months	8524	21550860	3301041	0.153174444	0.17193765	0.89087202
	8527	24729328	4096548	0.165655452		0.96346233
	8528	22717491	4474961	0.196983065		1.14566566
TG2576 18months	8522	29187591	3464076	0.118683176		0.69026867
	8526	24587151	3475925	0.141371605		0.82222598
	8529	26360776	2638950	0.100108965		0.58223992

		CREB1
WT 18months	Fold of control	1
	SD	0.13126767
	n	3
	SEM	0.07578742
TG2576 18months	Mean	0.69824486
	SD	0.12019169
	n	3
	SEM	0.0693927
	p value	0.02146972

Figure 7a

Intensity values corresponding to pIKBA and IKBA

Western Blot



Gel stain free adquisition, 2.5min

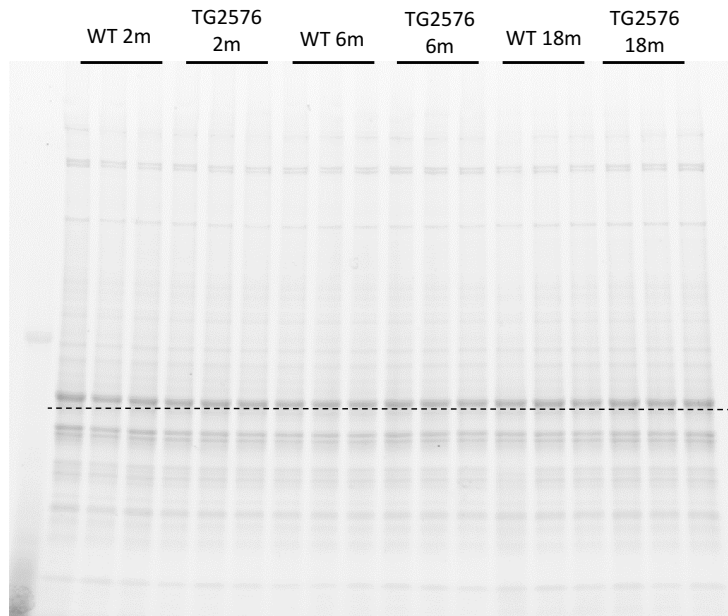
		p-IkBA	IkBA
WT 2 months	Mean	1	1
	SD	0.65262192	0.08335147
	n	3	3
	SEM	0.37679144	0.048123
TG2576 2 months	Mean	2.19249666	0.9980587
	SD	0.64472337	0.2570598
	n	3	3
	SEM	0.37223121	0.14841355
	p value	0.04375552	0.49551295
WT 6 months	Mean	1	1
	SD	0.45111096	0.10778573
	n	3	3
	SEM	0.26044903	0.06223012
TG2576 6 months	Mean	1.59864948	1.23524982
	SD	0.30575573	0.04381985
	n	3	3
	SEM	0.17652815	0.0252994
	p value	0.06977989	0.02400159
WT 18 months	Mean	1	1
	SD	0.10874566	0.07022497
	n	3	3
	SEM	0.06278434	0.04054441
TG2576 18 months	Mean	0.40020269	0.70310606
	SD	0.27621712	0.14440944
	n	3	3
	SEM	0.15947403	0.08337483
	p value	0.0245794	0.02586233

		Volume (Intensity)								
	Samples	STAIN FREE	p-IkBA	IkBA	p-IkBA/STAIN FREE		Fold of Control	IkBA/STAIN FREE		Fold of Control
WT 2 months	8673	43893078	1119316	193724	0.025500969	0.01695647	1.50390756	0.004413543	0.00409938	1.07663571
	8675	40825338	853758	169385	0.020912454		1.23330208	0.004149016		1.01210728
	8681	34103024	151963	127395	0.004455998		0.26279036	0.003735592		0.91125701
TG2576 2 months	8674	28208654	1361938	144514	0.048280857		2.84734073	0.005123038		1.24970914
	8676	37311060	1373991	154261	0.036825301		2.17175469	0.004134458		1.00855583
	8677	34935566	923168	105393	0.026424876		1.55839457	0.003016782		0.73591113
WT 6 months	8621	30123398	563057	107787	0.018691683	0.03336435	0.56022922	0.003578182	0.00406011	0.8813007
	8623	29834180	1454928	124393	0.048767152		1.46165459	0.004169479		1.02693636
	8625	28122698	917762	124659	0.032634209		0.97811619	0.004432683		1.09176294
TG2576 6 months	8622	36212252	1596120	174211	0.044076795		1.32107466	0.00481083		1.18490009
	8624	41292282	2133340	212040	0.051664376		1.54849052	0.0051351		1.26476723
	8626	29655846	1906056	151240	0.064272522		1.92638326	0.005099838		1.25608215
WT 18 months	8673	34257152	2127447	188157	0.062102273	0.05519952	1.12505086	0.005492488	0.00538094	1.02073063
	8675	36137012	1889703	205637	0.05229273		0.94734021	0.005690482		1.05752597
	8681	36380782	1862826	180443	0.051203572		0.92760893	0.004959844		0.92174339
TG2576 18 months	8674	35859498	1152216	167371	0.032131404		0.58209565	0.004667411		0.86739723
	8676	47914428	1418046	153729	0.029595386		0.53615291	0.003208407		0.59625429
	8677	43279606	196758	150366	0.004546206		0.08235951	0.003474292		0.64566668

Figure 7b

Intensity values corresponding to pNFKB and NFKB

Western Blot



Gel stain free adquisition, 2.5min

		pNFKB	NFKB
WT 2 months	Mean	1	1
	SD	0.16840106	0.09301045
	n	3	3
	SEM	0.0972264	0.05369961
TG2576 2 months	Mean	0.66944854	1.02410997
	SD	0.20325678	0.0841363
	n	3	3
	SEM	0.11735036	0.04857611
	p value	0.04913662	0.37802083
WT 6 months	Mean	1	1
	SD	0.09619447	0.13055263
	n	3	3
	SEM	0.05553791	0.0753746
TG2576 6 months	Mean	1.8324013	1.56030388
	SD	0.13389499	0.07425869
	n	3	3
	SEM	0.07730431	0.04287328
	p value	0.00072246	0.00316748
WT 18 months	Mean	1	1
	SD	0.13239365	0.14367937
	n	3	3
	SEM	0.07643751	0.08295332
TG2576 18 months	Mean	0.98579401	1.20493956
	SD	0.2092376	0.22721086
	n	3	3
	SEM	0.12080339	0.13118025
	p value	0.46322391	0.1345078

		Volume (Intensity)								
	Samples	STAIN FREE	pNFKB	NFKB	pNFKB/STAIN FREE		Fold of Control	NFKB/STAIN FREE		Fold of Control
WT 2 months	8673	20578656	186912	2847240	0.009082809	0.01126938	0.80597259	0.13835889	0.13102285	1.05599052
	8675	13561848	169362	1868202	0.012488121		1.10814655	0.137754235		1.05137564
	8681	16140456	197514	1887714	0.012237201		1.08588086	0.116955432		0.89263384
TG2576 2 months	8674	14027616	142848	1744488	0.010183341		0.90362948	0.124360975		0.94915484
	8676	13768920	83610	2011716	0.006072372		0.53883828	0.146105577		1.11511522
	8677	13568256	86526	1792080	0.006377091		0.56587785	0.132078876		1.00805984
WT 6 months	8621	13444704	67536	1425906	0.005023242	0.00546664	0.91889021	0.106057076	0.10413088	1.01849787
	8623	14213376	75744	1274598	0.005329065		0.97483368	0.08967595		0.86118501
	8625	14441400	87336	1684728	0.006047613		1.10627611	0.116659604		1.12031712
TG2576 6 months	8622	14870736	158868	2435382	0.010683264		1.9542652	0.163770105		1.57273337
	8624	14267592	144594	2418066	0.010134436		1.85386935	0.169479615		1.62756351
	8626	14123520	130410	2177532	0.009233534		1.68906934	0.154177712		1.48061475
WT 18 months	8673	15393060	64440	1673892	0.004186302	0.00486347	0.86076426	0.108743291	0.12768719	0.85163821
	8675	18148428	99234	2638242	0.005467912		1.1242817	0.145370277		1.13848755
	8681	16967304	83754	2187900	0.0049362		1.01495404	0.128948005		1.00987424
TG2576 18 months	8674	18114156	87282	2829168	0.004818441		0.99074125	0.156185472		1.22318825
	8676	18674388	70308	2310930	0.003764943		0.77412666	0.123748634		0.96915464
	8677	19698408	114246	3577860	0.005799758		1.19251413	0.181631937		1.42247578