

Supplemental Materials:

Table S1: Viability (ATP-production) of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	100.0000	0.0000	100.0000	0.0000	100.0000	0.0000	100.0000	0.0000
Vehicle	99.2731	1.7520	100.8842	1.5629	102.3911	1.4792	99.9362	1.7891
0.5 μ M AEA	101.4192	2.9463	97.9030	3.1198	95.4717	3.8712	93.9856	4.0561
1 μ M AEA	103.9571	2.8562	101.4820	2.5618	99.22815	4.7184	103.1779	5.2816
5 μ M AEA	102.9129	3.0581	102.1354	3.9574	103.8136	4.0133	101.972	4.7945
25 ng/mL LPS	79.6392	2.0058	69.9947	2.5819	65.6811	3.1294	63.8732	4.6917
0.5 μ M AEA + LPS	82.5801	3.5618	76.0937	3.6417	68.6592	3.5561	61.38756	3.3071
1 μ M AEA + LPS	85.2789	3.8761	59.3472	4.0136	52.34523	2.5812	47.8163	4.0922
5 μ M AEA + LPS	84.0966	2.9094	46.1829	3.7891	42.4897	3.5317	39.6493	4.1627
1 μ M AM251 +LPS	75.0476	3.2372	73.9104	3.6801	74.22295	3.1093	75.0372	3.9761
0.5 μ M AEA +1 μ M AM251 + LPS	74.6107	4.5048	72.6192	4.0096	74.1389	3.6106	75.4436	4.7813
1 μ M AEA + 1 μ M AM251 + LPS	76.0154	3.6879	74.0816	3.6045	75.4617	4.0441	78.9467	5.1069
5 μ M AEA + 1 μ M AM251 + LPS	78.5881	3.0573	77.6545	2.6719	80.9516	3.5714	81.4812	4.7981

Table S2: Cytotoxicity of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	10.0000	0.0000	10.0000	0.0000	10.0000	0.0000	10.0000	0.0000
Vehicle	11.0031	0.8462	9.5476	1.0573	10.3319	0.9441	9.0047	1.0515
0.5 μ M AEA	9.5619	1.9561	12.3452	2.0351	13.4256	2.4871	14.4762	1.9021
1 μ M AEA	12.4816	2.4295	13.6493	2.4617	14.5941	2.5515	14.7769	3.6411
5 μ M AEA	14.6944	2.0563	18.8313	3.0786	19.8093	3.0175	19.5257	4.3897
25 ng/mL LPS	51.5621	2.1537	57.3429	3.1638	59.6782	3.3246	55.2346	4.1792
0.5 μ M AEA + LPS	49.7819	2.3691	59.5436	4.1837	58.5423	4.5859	57.2987	5.0700
1 μ M AEA + LPS	53.1437	2.5015	62.9476	4.2916	63.5821	4.5343	59.0034	4.4578
5 μ M AEA + LPS	56.9813	3.3022	65.8992	3.8919	68.4712	5.4287	69.4009	4.3413
1 μ M AM251 +LPS	46.8604	2.7493	53.5717	4.3817	50.8719	4.9347	51.6981	5.2108
0.5 μ M AEA +1 μ M AM251 + LPS	48.3457	3.6172	51.9661	5.0943	51.7726	4.7791	52.7894	4.9072
1 μ M AEA + 1 μ M AM251 + LPS	47.2019	3.5881	50.4615	4.1637	48.9487	5.1043	51.0019	5.9666
5 μ M AEA + 1 μ M AM251 + LPS	49.5173	4.1306	53.9908	5.0038	50.9094	4.3468	48.9587	4.1937

Table S3: Cytochrome-C release of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	8.6476	0.0000	8.8154	1.3490	7.9961	0.4857	7.3492	1.4919
Vehicle	9.0192	0.5948	9.1491	0.7581	8.2043	1.5991	7.8495	2.8313
0.5 μ M AEA	8.5096	1.2492	8.3243	1.9343	9.0305	2.1458	8.1391	2.5167
1 μ M AEA	6.9291	0.9844	8.9181	0.9037	8.7183	1.4106	7.9466	2.0881
5 μ M AEA	8.4048	2.7658	9.5933	2.1931	9.1048	3.1789	8.1097	3.1943
25 ng/mL LPS	13.3017	2.5681	16.5482	2.0384	19.9772	2.5691	17.5124	3.4407

0.5 μ M AEA + LPS	17.5131	2.5953	19.3204	1.8875	19.3532	3.1044	18.5827	4.1656
1 μ M AEA + LPS	18.2456	2.5617	20.1459	1.5903	20.4821	2.8173	19.5602	3.1039
5 μ M AEA + LPS	21.7287	3.0583	26.3979	4.1738	21.0795	2.9104	19.8736	4.0571
1 μ M AM251 +LPS	11.4802	2.9791	11.4286	3.1904	11.9139	3.5091	8.1761	3.8193
0.5 μ M AEA +1 μ M AM251 + LPS	11.0747	3.0065	12.8152	2.5678	11.7281	4.0082	10.1411	4.7615
1 μ M AEA + 1 μ M AM251 + LPS	14.5941	2.6344	15.1369	2.0538	14.7769	3.6179	13.4256	4.1203
5 μ M AEA + 1 μ M AM251 + LPS	17.6141	3.0471	16.4450	3.1294	16.0375	4.2076	15.1407	5.1997

Table S4: Caspase-3/7 activation of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
Vehicle	0.9021	0.2149	1.2019	0.3948	0.9923	0.3719	1.0318	0.3481
0.5 μ M AEA	1.1036	0.3917	1.1949	0.4816	1.2018	0.6581	0.9836	0.3171
1 μ M AEA	1.4005	0.5028	1.4257	0.5162	1.1409	0.7172	1.0381	0.5136
5 μ M AEA	1.6542	0.9822	1.4981	0.4811	1.2647	0.7129	0.9934	0.7594
25 ng/mL LPS	4.3158	0.8536	4.4578	1.5417	4.7445	1.2481	5.0953	1.5361
0.5 μ M AEA + LPS	4.2159	0.7553	5.2016	1.9938	5.1839	1.5618	4.7165	1.2491
1 μ M AEA + LPS	5.0399	0.8059	7.2643	1.4172	7.1124	1.8739	6.8479	1.7282
5 μ M AEA + LPS	6.4271	0.9387	9.1856	1.1099	8.7910	1.5251	8.8697	2.0124
1 μ M AM251 +LPS	3.0567	0.9812	3.4066	0.8953	3.1838	0.9317	2.0840	0.8158
0.5 μ M AEA +1 μ M AM251 + LPS	2.9983	0.7484	3.3217	0.9182	2.9053	1.0381	2.7401	0.9416
1 μ M AEA + 1 μ M AM251 + LPS	4.1677	1.2943	5.8172	1.1381	4.1219	0.9471	2.9408	0.7244
5 μ M AEA + 1 μ M AM251 + LPS	3.9087	0.9541	5.1298	1.0461	4.6183	0.8492	3.0128	0.9881

Table S5: ROS production of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
Vehicle	0.9961	0.1034	0.9841	0.1385	1.0392	0.2859	0.9754	0.2498
0.5 μ M AEA	7.5431	1.4701	10.5718	1.4026	13.4817	2.0577	8.9271	2.6783
1 μ M AEA	11.7461	2.7566	14.1627	1.9715	14.9204	3.0121	15.0116	3.5886
5 μ M AEA	12.5812	3.1045	17.4033	1.8561	17.5119	3.6055	16.0520	3.7221
25 ng/mL LPS	17.4092	2.7904	15.9004	2.2561	15.5938	3.7612	11.5702	3.6152
0.5 μ M AEA + LPS	15.6206	4.8607	17.5923	4.6817	16.2458	4.4617	15.8162	4.5615
1 μ M AEA + LPS	19.4721	3.6592	20.5371	4.0354	19.1232	3.8093	17.0589	3.4679
5 μ M AEA + LPS	22.6903	4.0295	22.0662	5.9877	21.4144	4.1236	20.5980	4.0183
1 μ M AM251 +LPS	15.8577	3.2886	13.8463	3.6163	13.0717	2.7709	15.2193	3.5592
0.5 μ M AEA +1 μ M AM251 + LPS	14.7079	2.2358	12.4917	4.4719	11.0375	3.9042	10.5131	3.6733
1 μ M AEA + 1 μ M AM251 + LPS	14.3129	3.1638	11.5812	4.3917	11.3656	3.4871	11.0654	4.0816
5 μ M AEA + 1 μ M AM251 + LPS	20.8312	4.3761	18.4311	3.0611	15.1369	4.5694	12.7287	3.5617

Table S6: IsoP production of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	0.0100	0.0000	0.0100	0.0000	0.0100	0.0000	0.0600	0.0021

Vehicle	0.0100	0.0000	0.0100	0.0000	0.0100	0.0000	0.1000	0.0274
0.5 μ M AEA	5.9331	2.3172	55.3279	5.9022	32.5981	7.6617	14.0317	5.7726
1 μ M AEA	6.0736	2.5489	79.5103	7.5340	64.5871	8.0214	67.5006	9.4129
5 μ M AEA	19.0904	2.9567	115.6958	5.1320	97.0938	9.6052	82.9594	14.0298
25 ng/mL LPS	108.0581	7.4821	142.9510	8.0291	120.6091	11.5551	124.1405	16.4618
0.5 μ M AEA + LPS	113.7992	5.9519	158.1267	9.9473	141.4352	10.5268	125.6018	20.3504
1 μ M AEA + LPS	109.1833	6.4316	193.5319	11.5172	157.0238	13.8532	128.0155	19.8749
5 μ M AEA + LPS	117.6012	6.0041	242.8511	14.5609	198.4019	15.1796	142.5972	27.3993
1 μ M AM251 +LPS	84.6694	7.2356	129.5018	7.3461	106.1231	6.5061	102.3428	10.9238
0.5 μ M AEA +1 μ M AM251 + LPS	80.0281	6.7264	104.7691	13.6817	114.0923	11.8325	103.7906	14.4482
1 μ M AEA + 1 μ M AM251 + LPS	77.1957	7.3078	110.0823	11.5080	103.5012	9.1589	97.4311	17.9727
5 μ M AEA + 1 μ M AM251 + LPS	82.3281	11.0863	113.5428	9.0159	107.2481	10.4853	84.6914	14.4971

Table S7: ICAM-1 gene expression of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
Vehicle	1.1905	0.1392	0.9847	0.0941	1.1371	0.1812	1.2045	0.4918
0.5 μ M AEA	1.2943	0.0848	1.1038	0.1043	1.0318	0.3148	2.4581	0.8918
1 μ M AEA	0.8842	0.0910	0.9281	0.1197	0.9653	0.1263	1.9361	0.7863
5 μ M AEA	0.7229	0.0746	0.9238	0.2381	0.9841	0.2598	2.0149	1.3902
25 ng/mL LPS	114.8774	13.5093	115.0459	11.5009	114.1448	10.5864	113.6220	13.5919
0.5 μ M AEA + LPS	99.0206	11.0098	97.0924	8.5999	106.7432	11.0687	109.7372	12.5837
1 μ M AEA + LPS	111.1432	14.1887	134.5883	14.4527	131.8584	13.0012	121.5713	15.4726
5 μ M AEA + LPS	121.7838	12.6992	142.0624	12.5983	125.7202	14.1787	122.0364	11.0491
1 μ M AM251 +LPS	89.5693	6.9091	84.2447	4.1662	85.4769	6.6528	88.8710	7.4193
0.5 μ M AEA +1 μ M AM251 + LPS	86.0039	8.1439	78.3191	7.5914	72.5018	5.1948	70.4174	8.1298
1 μ M AEA + 1 μ M AM251 + LPS	78.4559	9.0016	74.3734	6.2986	68.8882	9.5617	65.9318	11.8581
5 μ M AEA + 1 μ M AM251 + LPS	68.9391	12.3653	64.9913	8.1263	60.4918	10.4168	56.9371	13.0207

Table S8: VCAM-1 gene expression of BAEC treated with AEA and AM251, with and without LPS (2, 8, 12, and 24 hours).								
	2 hr		8 hr		12 hr		24 hr	
Treatment	Mean	SEM	Mean	SEM	Mean	SEM	Mean	SEM
Media	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000	0.0000
Vehicle	1.0544	0.1354	0.9881	0.1239	1.0034	0.3918	0.9634	0.3027
0.5 μ M AEA	0.8322	0.1450	0.8128	0.1048	1.1204	0.2907	0.9927	0.2205
1 μ M AEA	0.9471	0.0832	0.8552	0.1218	1.0028	0.1946	1.1049	0.2487
5 μ M AEA	0.8061	0.0906	0.7461	0.1049	0.9906	0.2381	1.2471	0.3812
25 ng/mL LPS	67.4719	5.6217	69.4236	5.0126	68.6522	6.9328	65.8127	7.5827
0.5 μ M AEA + LPS	65.6108	5.0151	64.1948	5.1237	60.4953	5.8225	56.0018	7.1254
1 μ M AEA + LPS	64.4009	5.9274	61.4017	4.9073	58.3918	5.2237	55.1376	6.3731
5 μ M AEA + LPS	76.1482	4.9863	81.4781	5.1044	75.0217	5.6248	69.2636	6.6827
1 μ M AM251 +LPS	71.4611	5.9823	68.0139	6.1782	65.1204	6.0260	62.9173	7.6213
0.5 μ M AEA +1 μ M AM251 + LPS	68.5901	8.5006	65.0471	8.9913	63.5955	9.4272	61.7496	11.4844
1 μ M AEA + 1 μ M AM251 + LPS	64.0105	6.4371	64.3627	7.1267	63.4172	8.8284	62.0564	9.5712

5 μ M AEA + 1 μ M AM251 + LPS	59.1298	5.9989	53.3453	6.0928	52.1687	8.8962	53.8947	9.0766
---------------------------------------	---------	--------	---------	--------	---------	--------	---------	--------

Graph S1: Trans-endothelial resistance of BAEC treated with 1 μ M AM251, with and without LPS.

