

**SUPPLEMENTARY TABLE 1: Mean SPT Values**

Label	Condition	Cell Line	N	Dmicro				Dmacro				Alpha			
				Avg	SEM	LogAvg	SEM	Avg	SEM	LogAvg	SEM	Avg	SEM	LogAvg	SEM
TS2/18	DMSO	E6.1	50	10.30	0.70	9.10	1.30	1.31	0.30	0.40	0.05	0.53	0.05	0.41	0.06
TS2/18	PMA	E6.1	36	7.00	0.80	4.80	0.80	1.97	0.40	0.92	0.15	0.95	0.08	0.80	0.10
TS2/18	PMA+CD	E6.1	34	44.00	4.00	40.00	7.00	6.70	1.00	4.10	0.70	0.82	0.06	0.80	0.10
LFA-3	DMSO	E6.1	30	15.00	1.00	14.00	3.00	2.80	0.70	0.96	0.17	0.54	0.10	0.44	0.08
LFA-3	PMA	E6.1	23	8.00	1.00	6.00	1.00	0.86	0.20	0.47	0.09	0.95	0.10	0.81	0.20
LFA-3	PMA+CD	E6.1	35	22.00	1.00	21.00	4.00	3.92	0.70	2.40	0.40	0.77	0.06	0.70	0.10

**SUPPLEMENTARY TABLE 2: SPT Population Fits**

Mobile				Dmacro				weighted**				
Label	Condition	Cell Line	N	x0*	SEM	Np	%	Alpha	err	Dmicro	err	Nw
TS2/18	DMSO	E6.1	50	1.0	0.5	27	53%	0.6	1.0	11.1	0.9	16
TS2/18	PMA	E6.1	36	2.0	0.5	24	66%	0.9	0.1	8.3	1.2	17
TS2/18	PMA+CD	E6.1	34	6.2	0.6	28	83%	0.8	0.1	49.0	6.0	18
LFA-3	DMSO	E6.1	30	5.4	0.5	13	44%	0.9	0.1	19.0	1.0	9
LFA-3	PMA	E6.1	23	0.8	0.4	17	75%	1.2	0.1	5.8	0.8	13
LFA-3	PMA+CD	E6.1	35	2.8	0.2	32	91%	0.8	0.1	21.0	2.0	19

\* Center of fit peak [x10<sup>-10</sup> cm2sec<sup>-1</sup>]

\*\*Weighted values use 65% cutoff

Immobile				Dmacro				weighted**				
Label	Condition	Cell Line	N	x0*	SEM	Np	%	Alpha	err	Dmicro	err	Nw
TS2/18	DMSO	E6.1	50	0.11	0.60	23	47%	0.4	0.1	7.5	0.9	19
TS2/18	PMA	E6.1	36	0.18	0.70	12	34%	0.9	0.1	5.2	1.5	10
TS2/18	PMA+CD	E6.1	34	0.87	1.30	6	17%	0.7	0.1	33.0	5.0	6
LFA-3	DMSO	E6.1	30	0.27	0.50	17	56%	0.3	0.1	12.0	2.0	12
LFA-3	PMA	E6.1	23	0.06	0.60	6	25%	0.5	0.1	5.3	1.2	5
LFA-3	PMA+CD	E6.1	35	0.11	0.70	3	9%	0.5	0.1	12.0	5.0	2

\* Center of fit peak [x10<sup>-10</sup> cm2sec<sup>-1</sup>]

\*\*Weighted values use 65% cutoff

