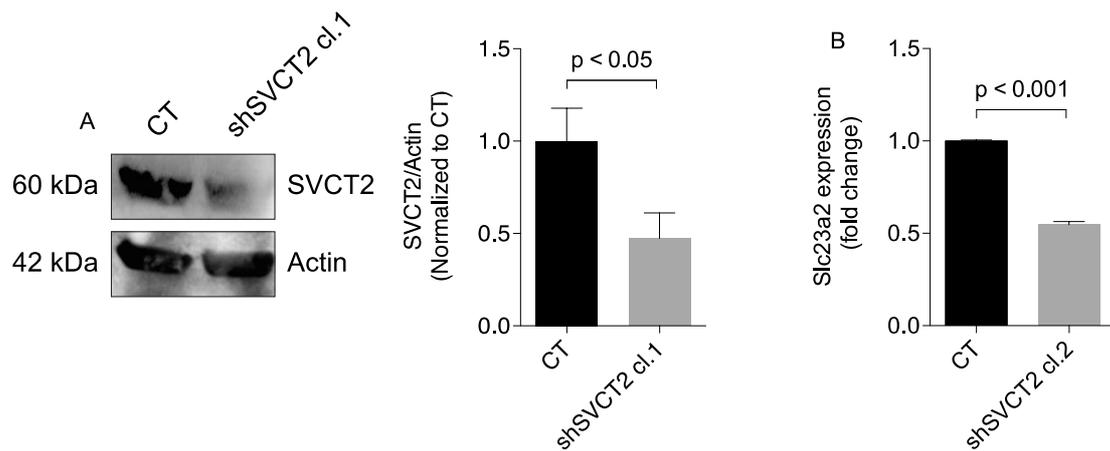


**Fig. S1. SVCT2 photoconversion in microglia.**

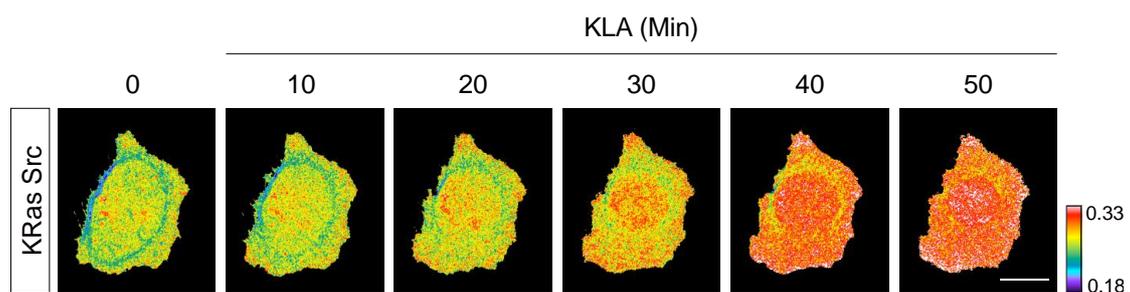
Representative confocal images of living CHM3 microglia expressing mEos-SVCT2 before (left) and after (right) mEos photoconversion. Photoswitch was carried out by scanning the indicated dashed square with the 405 nm laser line for 5 sec and fluorescence counts for the green and red (photoconverted) mEos-SVCT2 species were acquired. N = 2 independent cultures. Scale bar, 20 $\mu$ m.



**Fig. S2. SVCT2-KD validation in microglia.**

**A:** Western blot analysis of SVCT2 in lysates of N9 microglial cell sub-clones stably expressing the empty vector pLKO (control) or SVCT2 shRNA clone 1 (shSVCT2 cl.1) in pLKO. Actin was used as loading control. N=4 independent cultures. Graph displays mean and SEM as well as statistical significance for unpaired t-test.

**B:** *Slc23a2* (the gene encoding SVCT2 protein) mRNA abundance from rat primary microglia infected with lentiviruses carrying DsRed shRNA (control) or carrying SVCT2 shRNA clone 2 (shSVCT2 cl.2) measured by qRT-PCR. N=3 independent cultures. Graph displays mean and SEM as well as statistical significance for unpaired t-test.



**Fig. S3. Direct stimulation of TLR4 in microglia with KLA activates c-Src.**

CHME3 microglial cells expressing a c-Src FRET probe (K Ras Src) were exposed to Kdo2-LipidA (KLA). Representative time-lapse images of the CFP/FRET ratio changes for the biosensor are shown according to the pseudocolor scale. N=6 different cells pooled across 2 independent cultures. Scale bar, 20 $\mu$ m.

**Table S1. Information about human donors.**

Identification	Cause of death	Associated pathology	Age	Gender	Post-mortem time
1.1 / 1.2	Cardiopulmonary arrest	ALS	62	Male	15h
2.1 / 2.2	Thoracic aorta aneurysm rupture	Thoracic aorta aneurysm; Depression	75	Male	11h

**Table S2. Antibodies used for immunohistochemistry.**

Antibodies	Dilution	Source
SVCT2 (G19)	1:50	Santa Cruz Biotechnology
CD11b	1:200	AbD Serotec
OX-6	1:200	Affimetrix
Iba-1	1:500	Wako
Anti-rabbit Alexa 594	1:500	Life Technologies
Anti-goat Alexa 488	1:750	Life Technologies
Anti-mouse Alexa 568	1:500	Life Technologies

**Table S3. Antibodies used for immunocytochemistry.**

Antibody	Dilution	Company
<b>SVCT2</b>	1:50	Santa Cruz Biotechnology
CD11b	1:200	AbD Serotec
iNOS	1:200	Santa Cruz Biotechnology
PSD-95	1:500	Cellular Signaling
LAMP-2A	1:500	Life Technologies
Anti-rabbit Alexa 594	1:500	Life Technologies
Anti-goat Alexa 488	1:750	Life Technologies
Anti-mouse Alexa 568	1:400	Life Technologies

**Table S4. Antibodies used for Western blotting.**

Antibody	Dilution	Source
SVCT2 (G19)	1:100	Santa Cruz Biotechnology
NF-KB (p65)	1:1000	Santa Cruz Biotechnology
Lamin B	1:60	Millipore
LAMP 1	1:1000	Enzo Life Science
iNOS	1:1000	BD Bioscience
Src	1:1000	Cell Signalling
Caveolin-1	1:1000	Santa Cruz Biotechnology
Phospho Caveolin-1 (Tyr <sup>14</sup> )	1:100	Santa Cruz Biotechnology
Actin	1:10000	Sigma Aldrich
Anti-goat AP-conjugated	1:1000	GE Healthcare
Anti-rabbit AP-conjugated	1:1000	GE Healthcare
Anti-mouse AP-conjugated	1:1000	GE Healthcare
Anti-rabbit HRP-conjugated	1:1000	Jackson Immuno Research

**Table S5. Primers used for qRT-PCR.**

Primers	Sequence (5' - 3')	
	Forward	Reverse
<b>SVCT2</b>	TCCTCTCCCAATCTACAAATC	GATAGCCAGGATTATAGGAAAC
<b>IL-1<math>\beta</math></b>	TAAGCCAACAAGTGGTATTC	AGGTATAGATTCTTCCCCTTG
<b>IL-6</b>	ACTCATCTTGAAAGCACTTG	GTCCACAAACTGATATGCTTAG
<b>TNF</b>	CTCACACTCAGATCATCTTC	GAGAACCTGGGAGTAGATAAG
<b>CCL2</b>	ATGCAGTTAATGCCCACTC	TTCTTATTGGGGTCAGCAC
<b>CCL5</b>	GTGCCACGTGAAGGAGTAT	CCACTTCTTCTCTGGGTTGG
<b>CXCL1</b>	AGACAGTGGCAGGGATTAC	GGGACACCCTTTAGCATCT
<b>MHC II (CD74)</b>	CCACCTAAAGAGCCACTGGA	AGAGCTGGCTTCTGTCTTCAC
<b>TREM2</b>	AACTTCAGATCCTCACTGGACC	CCTGGCTGGACTTAAGCTGT
<b>TSPO</b>	TGTATTCGGCCATGGGGTATG	GAGCCAGCTGACCAGTGTAG
<b>ICAM-1</b>	CAAGGGCTGTCACTGTTCAA	CTTCAGAGGCAGGAAACAGG
<b>C1qA</b>	TGGTATGGACAGTGGCTGAA	GATTCCCCCATGTCTCCTTT
<b>C1qB</b>	ATCTTGACACCCCTGTTGCT	CCTAACTCACCATGGTCTCCA
<b>Ywhaz</b>	GATGAAGCCATTGCTGAACTTG	GTCTCCTTGGGTATCCGATGTC