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Supplementary Data

Processing of Endogenous AβPP in Blood-Brain Barrier Endothelial Cells is Modulated by Liver-X Receptor Agonists and Altered Cellular Cholesterol Homeostasis

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ANTIBODIES

Rabbit polyclonal anti-AβPP antibody (ab) directed against the C-terminus of human AβPP was purchased from Invitrogen (Vienna, Austria; product number 51–2700) and was used for immunoblotting to detect mature and immature AβPP ($_{m}$AβPP and $_{im}$AβPP, 1 : 1500 dilution). The A11 rabbit polyclonal anti-Amyloid Oligomer ab directed against a peptide backbone that is common to amyloid oligomers was purchased from Millipore (Vienna, Austria) and was used for immunoblotting to detect intra- and extracellular Aβ oligomers (1 : 10,000 dilution). The BAM-10 monoclonal mouse-anti β-Amyloid ab specifically recognizes amino residues 1–12 of Aβ peptide, corresponding to aa 672–683 in human/porcine AβPP. It was purchased from Sigma Aldrich (Vienna, Austria) and was used for immunoblotting to detect Aβ and secreted, soluble AβPP alpha (sAβPPα, 1 : 1500 dilution). Rabbit polyclonal anti-sAβPPβ ab recognizes the soluble fragment cleaved N-terminal to the beta-secretase cleavage site of AβPP, was purchased from Covance (Anopoli, Vienna, Austria) and was used for immunoblotting to detect secreted, soluble AβPP beta (sAβPPβ, 1 : 200). Rabbit polyclonal anti-HMG-CoA reductase (HMGCR) ab detects an epitope within amino residues 550–650 of human HMGCR, was purchased from Abcam (Vienna, Austria) and was used for immunoblotting to detect HMGCR (1 : 1000 dilution). Rabbit polyclonal anti-sterol regulatory element binding protein 2 (SREBP-2) ab detects an epitope within amino residues 300–400 of human SREBP-2, was purchased from Abcam and was used for immunoblotting to

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detect SREBP-2 (1 : 1000 dilution). Rabbit polyclonal anti-ATP-binding cassette transporter A1 (ABCA1) ab detects an epitope within amino residues 1200–1300 of human ABCA1, was purchased from Abcam and was used for immunoblotting to detect ABCA1 (1 : 1000 dilution). Rabbit polyclonal anti-β-amyloid ab specifically recognizes amino residues 693–706 of human AβPP protein and was purchased from Sigma Aldrich. It was used for immunhistochemistry and immunofluorescence (1 : 200 dilution) to detect AβPP in cerebral vessels and brain capillary endothelial cells, respectively. Rabbit polyclonal anti-von Willebrand factor (vWF) ab detects human vWF, was purchased from DAKO (Vienna, Austria), and was used for immunhistochemistry to detect vWF in cerebral vessels (1 : 10,000 dilution). Rabbit polyclonal anti-apoA-I was a gift from Dr. E. Malle (Institute of Molecular Biology and Biochemistry, Medical University of Graz, Austria). Rabbit polyclonal anti-β-actin ab detects the C-terminal residues Ser-Gly-Pro-Ser-Ile-Val-His-Arg-Lys-Cys-Phe of the β-actin protein, was purchased from Sigma Aldrich and was used for immunoblotting to detect β-actin (1 : 5000 dilution). Secondary antibodies conjugated to horseradish peroxidase used for immunoblotting were either goat polyclonal to rabbit IgG purchased from Abcam (1 : 10,000 dilution) or goat polyclonal to mouse IgG purchased from Sigma Aldrich (1 : 6000 dilution).

Supplementary Table 1
Primer sequences for quantitative real-time PCR

HPRT-1	AGGACCTCTCGAAGTGTTGG	247
	CAGATGGCCACAGGACTAGA	
ACAT-1	GCCACTAAGCTTGGTTCCAT	118
	GCTTGTCCTTCACCTCCTTG	
ACAT-2	CATAGAAGCCATGTCCAAGC	264
	ACATCTTCCAGTGACCAACC	
SREBP-2	GCTTCTCCCCCTACTCCATC	151
	GAGAGGCACAGGAAGGTGAG	
HMGCR	CTTGTTCACGCGCACAGTCG	207
	GACAGCCAGAAGGAGAGCCA	
ABCA1	GCCATTCTCCGGGCCAAC	252
	GGCTTCACGCCGCTGAT	
PSEN1	CATGACTATTCTCCTGGTGG	201
	GCAATCATTCCTACCACACC	
PSEN2	CCTCCTCAACTCCGTGCTCA	203
	GGTAGTCCATGGCCACGTTG	
NCSTN	GGTCTCCTTCGCCTTCTGTC	255
	GCTCTCCAGCAGAACCATGT	
PSENEN	ATGAACCTGGAGCGAGTGTC	152
	CTCTGTTCTGTGTAGGCTGG	
APH-1a	GCCTCTGTGGTCTGGTTCAT	184
	ATCTTCCGTCCTCACTCAGC	
ADAM10	AGCAACATCTGGGGACAAAC	219
	CTTCCCTCTGGTTGATTTGC	
BACE1	ACAGTGGCACCACCAACCTT	105
	GCCAGAAACCATCAGGGAAC	
COX2	CCCTTTCCAACTAGGCTTCC	237
	CGTAATGATGGAAGGGCAAT	
TNFα	CCACCAACGTTTTCCTCACT	247
	CCAAAATAGACCTGCCCAGA	
APP	GTGAAGATGGATGCGGAGTT	152
	GTGATGACAATCACGGTTGC	