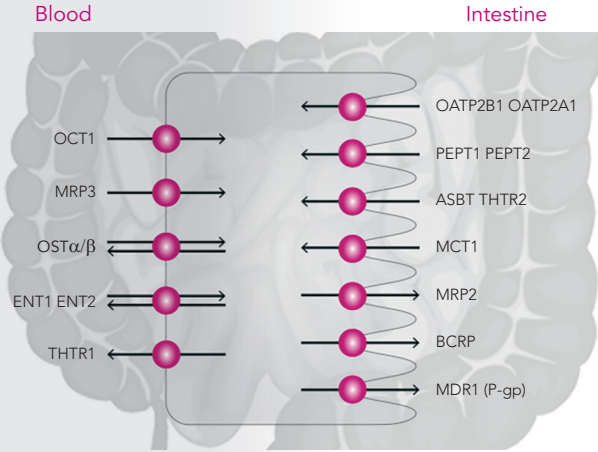
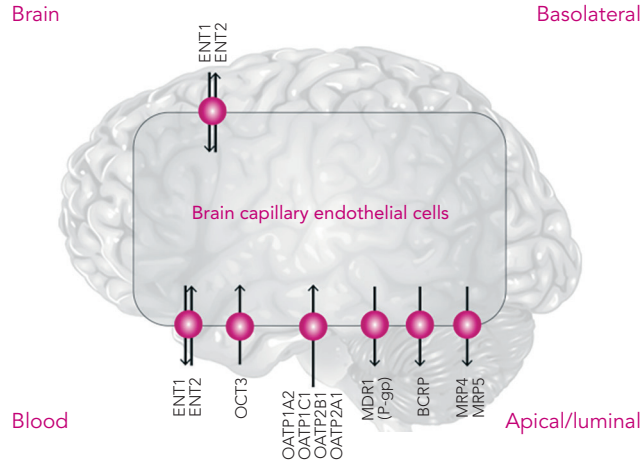


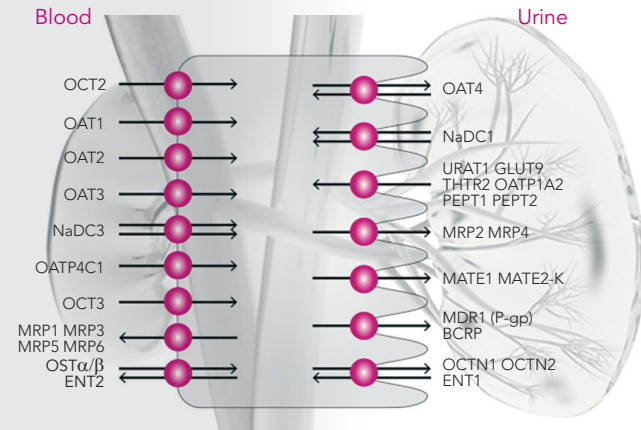
Intestine



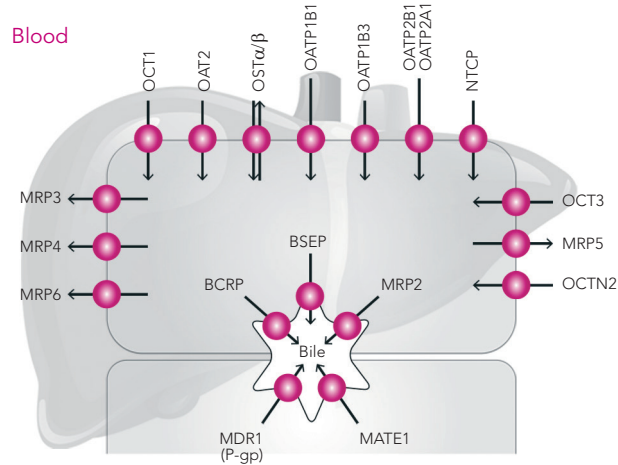
Blood-brain-barrier



Kidney



Liver



the pathfinder for your drug

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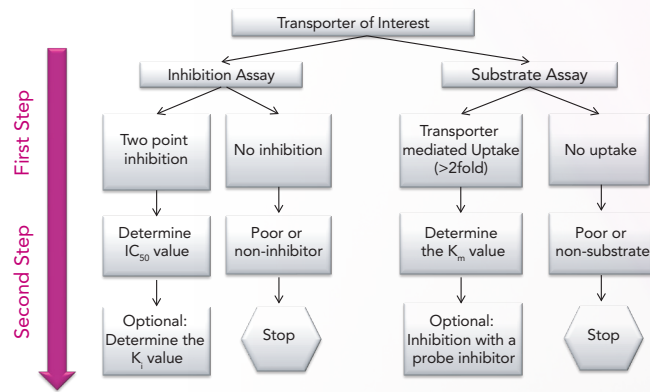


As experts in membrane transporters we provide

Consulting service for transporter selection

- Advice regarding FDA & EMA guidelines
- Customized study design & study plan
- Professional performance of transporter assays
- Tabulated study report
- Study report adapted to customers' needs

Decision Tree



Experimental methods

- Cellular uptake assays in stably transfected HEK-293 cells
- Cellular efflux assays in stably transfected HEK-293 cells
- Uptake assays in inside-out vesicles prepared from HEK-293 cells
- Uptake in human or rat hepatocytes (oil spin or filter technique)

Please, for more information visit our website www.portacelltec.de or contact us info@portacelltec.de



FDA/EMA/PMDA recommended drug transporters

- OAT1, OAT3, OCT1, OCT2
- OATP1B1, OATP1B3
- MATE1, MATE2-K
- MDR1, BCRP, BSEP

Human transporters

- OAT2, OAT4, OCT3, OCTN1, OCTN2
- OATP1A2, OATP2A1, OATP2B1, PEPT1, PEPT2
- ASBT, NTC1, SOAT1, NaDC1, NaDC3
- LAT1, LAT2, SERT, URAT1, GLUT9
- MRP1, MRP2, MRP3, MRP4, MDR3
- OST α/β and iodide transporter NIS



Rat transporters

- Oat1, Oat2, Oat3, Oat6, Soat
- Oct1, Oct2, Oct3, Oatp1b2, Nis

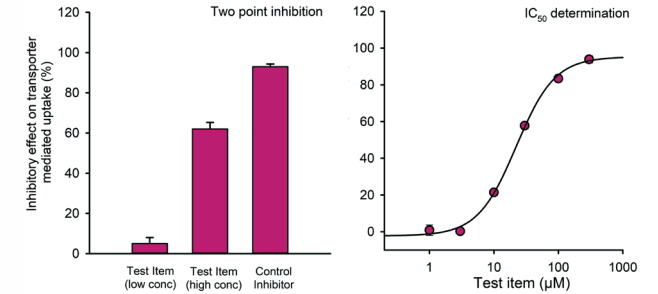
Mouse transporters

- Oat1, Oat2, Oat3, Oat6, Soat
- Oct1, Oct2, Oct3, Oatp1b2, Ntcp, Mate1
- Bsep, Mdr1a, Mdr1b



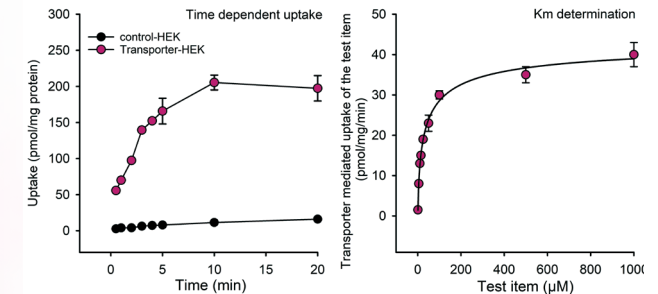
Inhibition assays

- Two point inhibition with a reference substrate
- IC₅₀ determination
- Time dependent inhibition (IC₅₀ shift)
- Determination of the inhibition character K_i



Substrate assays

- Quantification of substrate uptake with labeled substrates (radioactive or fluorescent)
- Quantification of non-labeled substrate uptake by LC-HRMS
- Transport kinetics: time- and concentration dependent uptake
- Determination of K_m and V_{max}



Additional service

- Tests for solubility, stickiness and cytotoxicity
- Analysis of transporter or CYP induction (qRT-PCR)
- Stable transfection of HEK-293 cells with gene of interest