

Protocol for Emulate Organ-Chips:

Aspartate Transaminase (AST) Assay

April 8, 2019

EP147 v1.0



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Goals:	Key Steps:	Required Materials:
Quantify human aspartate transaminase (AST) from Liver-Chip effluent samples	<ul> <li>Prepare all reagents, samples, and standards</li> <li>Run assay</li> <li>Read plate</li> </ul>	<ul> <li>Human AST AlphaLISA<sup>®</sup> Detection Kit (Perkin Elmer AL3078HV)</li> <li>EnVision<sup>®</sup> Alpha Reader</li> </ul>

## 1. Method

Comple ture	Liver-Chip effluent
Sample type	See Protocol EP124 Effluent Sampling.
Recommended assay flow rate (Liver-Chip)	30 µL / h
Recommended effluent dilution (Liver-Chip)	No dilution: Samples are loaded neat.
	Note: Sample dilution may need to be adjusted further to accommodate for any experimental modifications by the user.
Run assay as described on supplier site	http://www.perkinelmer.com/product/alphalisa-ast-human-kit-100pts- al3078hv
	Note: Store kit immediately upon receipt in the dark at 4°C.
Sample concentration range (Liver-Chip)	500–20,000 pg / mL

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