

Spatial Tissue Exploration Program (STEP)

Last updated: March 3, 2021

STEP Core Panel – Human FFPE (STP1000)

The STEP Core Panel is a discovery tool that detects a broad range of immune cells. CODEX® assay services will be performed to detect the protein targets listed in Table 1 below. Antibodies in this list are optimized for use in human FFPE tissues. The target list may be adjusted as determined by Akoya. After sample submission, a report of the results will be provided in approximately 6-8 weeks.

Table 1. STEP Core Panel Targets

CD3e	CD4	CD8	CD11c	CD14	CD20
CD21	CD31	CD44	CD45	CD45RO	CD66a/c/e
CD68	CD107a	Collagen IV	E-Cadherin	HLA-A	HLA-DR
Pan-cytokeratin	SMA	Vimentin	β-actin	CD34	Ki67

STEP+ Enhancement Module – Human FFPE (STP1001)

The STEP+ Enhancement Module covers additional immune cell states and checkpoints and is used in addition to a STEP Core Panel. CODEX® assay services will be performed to detect the protein targets listed in Table 2 below. Antibodies in this list are optimized for use in human FFPE tissues. The target list may be adjusted as determined by Akoya. Data from the Enhancement module will be included with the STEP Core Panel report.

Table 2. STEP+ Enhancement Module Targets

β-catenin 1	CD11b	CD15	CD19	CD57	CD79a
CD227	CD278 (ICOS)	Granzyme B	IDO1	LAG3	LaminB1
PCNA	S100A4	TFAM			

STEP+ Antibody Conjugation Service (STP2000)

A custom Antibody Conjugation Service is available for customers seeking to test new antibodies in combination with a STEP panel. The customer will provide the antibody to be conjugated, and Akoya will conjugate this antibody with a CODEX® Barcode that is complementary to barcodes already contained in the STEP panel. An antibody conjugation report will be provided with the STEP Panel report; this additional report will inform about the success of the chemical conjugation. The antibody will then be included in the panel and tested *in situ* against the provided tissue.

Due to variability in antibody formats and performance, no guarantees can be made regarding success of conjugation and inclusion of conjugated antibody in the CODEX run. Akoya will test a maximum of 2 (two) clones per custom antibody; both clones will be provided by the customer.

Note: Markers used for the STEP Core Panels and STEP+ Modules may be subject to substitution at Akoya's discretion based on availability.