

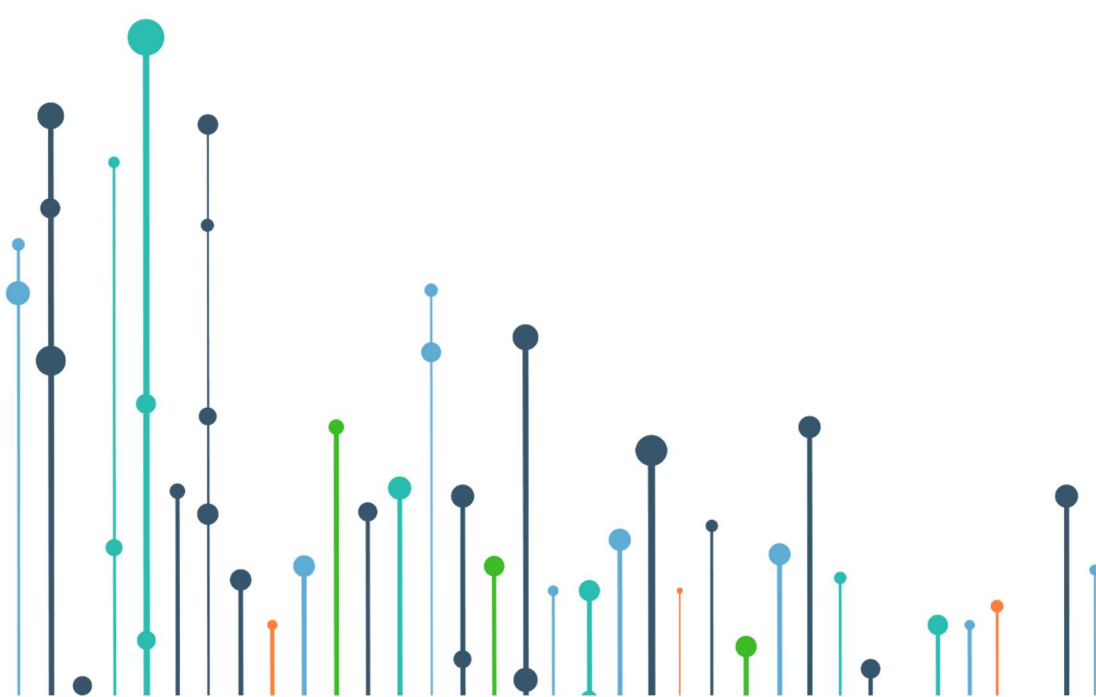


VitalScientific
Diagnostics for Life

CONFIGURING YOUR VITALSCIENTIFIC SYSTEMS FOR THIRD PARTY EXTERNAL QUALITY ASSURANCE (EQA) PROGRAMS

NOVEMBER 2025

EQA-Config_V2



OVERVIEW

BENEFITS OF EQA

- ✓ By enrolling in an External Quality Assurance (EQA) program, the performance of your laboratory is retrospectively compared to other laboratories using the same instruments and reagents (your peer group).
- ✓ EQA Programs are available from a variety of sources including both clinical chemistry professional bodies, as well as commercial organisations.
- ✓ Some examples of EQA-programs include CAP; RCPA QAP; Randox RIQAS and Bio-Rad EQAS.
- ✓ To maximise the benefits of such programs, it is important that Selectra Pro and Selectra Mach5 users accurately complete the required selections for each test parameter when enrolling in a program for the first time or updating an existing subscription because of a change in reagent and/or instrument.

The following section provides guidance on setting up VitalScientific systems for two widely used, commercially available EQAPs

BIORAD EQAS

Selectra Mach[®]5

Analyte	Instrument	Reagent	Method
ALT (ALAT/GPT)	VitalScientific Selectra Mach 5	VitalScientific MACH REF ALSL-M490 (Factored, IFCC Corr.)	UV with P5P - IFCC Ref. Proc., Calibrated
Albumin	VitalScientific Selectra Mach 5	VitalScientific MACH REF ALBU-M830	Bromocresol Green (BCG)
Alkaline Phosphatase	VitalScientific Selectra Mach 5	VitalScientific MACH REF ALPI-0230	PNPP, AMP Buffer - IFCC Ref. Proc., Calibrated
Amylase	VitalScientific Selectra Mach 5	VitalScientific MACH REF AMSL-M430	CNP-triose/CNPG3
AST/GOT	VitalScientific Selectra Mach 5	VitalScientific MACH REF ASSL-M490 (Factored, IFCC Corr.)	UV with P5P - IFCC Ref. Proc., Calibrated
Bilirubin, Direct	VitalScientific Selectra Mach 5	VitalScientific MACH REF BIDI-M430	Diazotization
Bilirubin, Total	VitalScientific Selectra Mach 5	VitalScientific MACH REF BITO-M430	Diazonium Ion
Calcium	VitalScientific Selectra Mach 5	VitalScientific MACH REF CALA-M430	Arsenazo III
Cholesterol, HDL	VitalScientific Selectra Mach 5	VitalScientific MACH REF CHDL-M330	Direct measure, polymer-polyanion
Cholesterol, LDL	VitalScientific Selectra Mach 5	VitalScientific MACH REF CLDL-M330	Direct measure
Cholesterol, LDL	VitalScientific Selectra Mach 5	VitalScientific Chol/HDL/Trig	Calculated
Cholesterol, Total	VitalScientific Selectra Mach 5	VitalScientific MACH REF CHSL-M690	Cholesterol oxidase, esterase, peroxidase
Cholinesterase	VitalScientific Selectra Mach 5	VitalScientific MACH REF CHEB-0250	Butyrylthiocholine (Trinder)
Creatine Kinase	VitalScientific Selectra Mach 5	VitalScientific MACH REF CKSL-M230	NAC Activated - IFCC Ref. Proc., Calibrated
Creatinine	VitalScientific Selectra Mach 5	VitalScientific MACH REF CRSL-M490	Enzymatic IFCC-IDMS Standardized
TIBC	VitalScientific Selectra Mach 5	VitalScientific MACH REF TIBC-M130	Chromazurol Dye
G-Glutamyltransferase	VitalScientific Selectra Mach 5	VitalScientific MACH REF GISL-M230	G-glutamyl-carboxy-nitroanilide - IFCC Ref. Proc., Calibrated
Glucose	VitalScientific Selectra Mach 5	VitalScientific MACH REF GPSL-M690	Glucose oxidase, hydrogen peroxide (Trinder)
Iron	VitalScientific Selectra Mach 5	VitalScientific MACH REF FEFE-M230	Ferene
Lactate (Lactic Acid)	VitalScientific Selectra Mach 5	VitalScientific LACTATE REF LACI-0250	Enzymatic
LDH	VitalScientific Selectra Mach 5	VitalScientific MACH REF LLSL-M230	L to P - IFCC Ref. Proc., Calibrated
Lipase	VitalScientific Selectra Mach 5	VitalScientific MACH REF LPSL-0250	Enzymatic, colorimetric
Lithium	VitalScientific Selectra Mach 5	VitalScientific MACH REF LITH-0230/5008	Colorimetric
Magnesium	VitalScientific Selectra Mach 5	VitalScientific MACH REF MGXB-M430	Xylydyl blue
Phosphorus	VitalScientific Selectra Mach 5	VitalScientific MACH REF PHOS-M430	Phosphomolybdate method
Protein, Total	VitalScientific Selectra Mach 5	VitalScientific MACH REF PROB-M830	Biuret method
Transferrin	VitalScientific Selectra Mach 5	VitalScientific MACH REF TRF2-M230	Immunoturbidimetric
Triglycerides	VitalScientific Selectra Mach 5	VitalScientific MACH REF TGML-M690	Enzymatic, end point
Urea	VitalScientific Selectra Mach 5	VitalScientific MACH REF URSL-M830	Urease, UV
Uric Acid	VitalScientific Selectra Mach 5	VitalScientific MACH REF AUML-M830	Uricase, colorimetric

BIORAD EQAS

Selectra Pro

Analyte	Instrument	Reagent	Method
ALT (ALAT/GPT)	VitalScientific Selectra Pro	VitalScientific ALT REF ALSL (Factored, IFCC Correlated)	UV with P5P - IFCC Ref. Proc., Calibrated
Albumin	VitalScientific Selectra Pro	VitalScientific ALBUMIN REF ALBU-0250/0600/0700	Bromocresol Green (BCG)
Alkaline Phosphatase	VitalScientific Selectra Pro	VitalScientific ALP REF ALPI-0230	PNPP, AMP Buffer - IFCC Ref. Proc., Calibrated
Amylase	VitalScientific Selectra Pro	VitalScientific AMYLASE REF AMSL-0230/0390/0400	CNP-triose/CNPG3
AST/GOT	VitalScientific Selectra Pro	VitalScientific AST REF ASSL (Factored, IFCC Correlated)	UV with P5P - IFCC Ref. Proc., Calibrated
Bilirubin, Direct	VitalScientific Selectra Pro	VitalScientific BILIRUBIN TOTAL & DIRECT 4+1	Diazotization
Bilirubin, Total	VitalScientific Selectra Pro	VitalScientific BILIRUBIN TOTAL & DIRECT 4+1	Diazonium Ion
Calcium	VitalScientific Selectra Pro	VitalScientific CALCIUM REF CALA-0600/0250	Arsenazo III
Chloride	VitalScientific Selectra Pro	VitalScientific ISE Na, K, Cl, CO2	ISE indirect
Cholesterol, HDL	VitalScientific Selectra Pro	VitalScientific HDL Cholesterol REF CHDL-0250/0600	Direct measure, polymer-polyanion
Cholesterol, LDL	VitalScientific Selectra Pro	VitalScientific LDL Cholesterol REF CLDL-0250	Direct measure
Cholesterol, LDL	VitalScientific Selectra Pro	VitalScientific Chol/HDL/Trig	Calculated
Cholesterol, Total	VitalScientific Selectra Pro	VitalScientific CHOLESTEROL REF CHSL-0250/04XX/050X/070X	Cholesterol oxidase, esterase, peroxidase
Cholinesterase	VitalScientific Selectra	VitalScientific CHOLINESTERASE REF CHEB-0250	Butyrylthiocholine (Trinder)
CO2 (Carbon Dioxide)	VitalScientific Selectra Pro	VitalScientific ISE Na, K, Cl, CO2	ISE indirect
Creatine Kinase	VitalScientific Selectra Pro	VitalScientific CK NAC REF CKSL-0230/04X0	NAC Activated - IFCC Ref. Proc., Calibrated
Creatinine	VitalScientific Selectra Pro	VitalScientific CREATININE PAP REF CRSL-0250/0630	Enzymatic IFCC-IDMS Standardized
TIBC	VitalScientific Selectra Pro	VitalScientific DIRECT TIBC REF TIBC-0250	Chromazurol Dye
G-Glutamyltransferase	VitalScientific Selectra Pro	VitalScientific GAMMA-GT PLUS REF GISL-0250/04X0	G-glutamyl-carboxy-nitroanilide - IFCC Ref. Proc., Calibrated
Glucose	VitalScientific Selectra Pro	VitalScientific GLUCOSE PAP REF GPSL-0250/04XX/050X/070X	Glucose oxidase, hydrogen peroxide (Trinder)
Iron	VitalScientific Selectra Pro	VitalScientific IRON FERENE REF FEFE-0230/0600	Ferene
Lactate (Lactic Acid)	VitalScientific Selectra Pro	VitalScientific LACTATE REF LACI-0250	Enzymatic
LDH	VitalScientific Selectra Pro	VitalScientific LDH-L REF LLSL-0230/04X0	L to P - IFCC Ref. Proc., Calibrated
Lipase	VitalScientific Selectra Pro	VitalScientific LIPASE REF LPSL-0250	Enzymatic, colorimetric
Lithium	VitalScientific Selectra Pro	VitalScientific PRO REF LITH-0230/5008	Colorimetric
Magnesium	VitalScientific Selectra Pro	VitalScientific MAGNESIUM XB REF MGXB-0250/0600	Xylidyl blue
Phosphorus	VitalScientific Selectra Pro	VitalScientific PHOSPHORUS REF PHOS-0600/0230	Phosphomolybdate method
Potassium	VitalScientific Selectra Pro	VitalScientific ISE Na, K, Cl, CO2	ISE indirect
Protein, Total	VitalScientific Selectra Pro	VitalScientific TOTAL PROTEIN PLUS REF PROB-0250/0600/0700	Biuret method
Sodium	VitalScientific Selectra Pro	VitalScientific ISE Na, K, Cl, CO2	ISE indirect
Transferrin	VitalScientific Selectra Pro	VitalScientific MACH REF TRF2-M230	Immunoturbidimetric
Triglycerides	VitalScientific Selectra Pro	VitalScientific TRIGLYCERIDES SL/MONO SL REF TGML	Enzymatic, end point
Urea	VitalScientific Selectra Pro	VitalScientific UREA UV REF URSL-0250/042X/050X/5XXX/6XXX	Urease, UV
Uric Acid	VitalScientific Selectra Pro	VitalScientific URIC ACID MONO REF AUML-0250/04XX/050X/0707	Uricase, colorimetric

RANDOX RIQAS

Selectra Mach[®]5

Parameter	Method	Instrument	Supplier
Albumin	Bromocresol Green	Vital Scientific Selectra Mach5	Vital Scientific
Alkaline Phosphatase	AMP optimised to IFCC	Vital Scientific Selectra Mach5	Vital Scientific
ALT (GPT)	Tris buffer without P5P	Vital Scientific Selectra Mach5	Vital Scientific
Amylase, Total	Human CNPG3 (IFCC)	Vital Scientific Selectra Mach5	Vital Scientific
AST (GOT)	Tris buffer without P5P	Vital Scientific Selectra Mach5	Vital Scientific
Bilirubin Direct	Diazo with Sulphanilic Acid	Vital Scientific Selectra Mach5	Vital Scientific
Bilirubin Total	Diazo with Sulphanilic Acid	Vital Scientific Selectra Mach5	Vital Scientific
Calcium	Arsenazo	Vital Scientific Selectra Mach5	Vital Scientific
Cholinesterase	Colorimetric - Butyrylthiocholine	Vital Scientific Selectra Mach5	Vital Scientific
Cholesterol	Cholesterol Oxidase - IDMS	Vital Scientific Selectra Mach5	Vital Scientific
CK, Total	CK-NAC (IFCC)	Vital Scientific Selectra Mach5	Vital Scientific
Creatinine	Enzymatic	Vital Scientific Selectra Mach5	Vital Scientific
GGT	Gamma glut'3-carb'4-nitro(IFCC)	Vital Scientific Selectra Mach5	Vital Scientific
Glucose	Glucose oxidase	Vital Scientific Selectra Mach5	Vital Scientific
HDL-Cholesterol	Direct HDL PPD	Vital Scientific Selectra Mach5	Vital Scientific
Iron	Colorimetric without ppt.	Vital Scientific Selectra Mach5	Vital Scientific
Lactate	Colorimetric - Lactate oxidase	Vital Scientific Selectra Mach5	Vital Scientific
LD (LDH)	L to P, IFCC	Vital Scientific Selectra Mach5	Vital Scientific
LDL-Cholesterol	Other direct methods	Vital Scientific Selectra Mach5	Vital Scientific
Lipase	Roche Colorimetric	Vital Scientific Selectra Mach5	Vital Scientific
Lithium	Spectrophotometric	Vital Scientific Selectra Mach5	Vital Scientific
Magnesium	Xylidyl Blue	Vital Scientific Selectra Mach5	Vital Scientific
Phosphate, Inorganic	Phosphomolybdate UV	Vital Scientific Selectra Mach5	Vital Scientific
Protein, Total	Biuret reaction end point	Vital Scientific Selectra Mach5	Vital Scientific
TIBC	Direct Colorimetric	Vital Scientific Selectra Mach5	Vital Scientific
Trig Total	Lipase/GPO-PAP no correction	Vital Scientific Selectra Mach5	Vital Scientific
Urea	Urease, kinetic	Vital Scientific Selectra Mach5	Vital Scientific
Uric Acid (Urate)	Uricase perox. no ascorb. ox.	Vital Scientific Selectra Mach5	Vital Scientific

RANDOX RIQAS

Selectra Pro

Parameter	Method	Instrument	Supplier
Albumin	Bromocresol Green	Vital Scientific Selectra Pro	Vital Scientific
Alkaline Phosphatase	AMP optimised to IFCC	Vital Scientific Selectra Pro	Vital Scientific
ALT (GPT)	Tris buffer without P5P	Vital Scientific Selectra Pro	Vital Scientific
Amylase, Total	Human CNPG3 (IFCC)	Vital Scientific Selectra Pro	Vital Scientific
AST (GOT)	Tris buffer without P5P	Vital Scientific Selectra Pro	Vital Scientific
Bicarbonate	Ion selective electrode	Vital Scientific Selectra Pro	Vital Scientific
Bilirubin Direct	Diazo with Sulphanilic Acid	Vital Scientific Selectra Pro	Vital Scientific
Bilirubin Total	Diazo with Sulphanilic Acid	Vital Scientific Selectra Pro	Vital Scientific
Calcium	Arsenazo	Vital Scientific Selectra Pro	Vital Scientific
Cholinesterase	Colorimetric - Butyrylthiocholine	Vital Scientific Selectra Pro	Vital Scientific
Chloride	Ion Selective Electrode	Vital Scientific Selectra Pro	Vital Scientific
Cholesterol	Cholesterol Oxidase - IDMS	Vital Scientific Selectra Pro	Vital Scientific
CK, Total	CK-NAC (IFCC)	Vital Scientific Selectra Pro	Vital Scientific
Creatinine	Enzymatic	Vital Scientific Selectra Pro	Vital Scientific
GGT	Gamma glut'3-carb'4-nitro(IFCC)	Vital Scientific Selectra Pro	Vital Scientific
Glucose	Glucose oxidase	Vital Scientific Selectra Pro	Vital Scientific
HDL-Cholesterol	Direct HDL PPD	Vital Scientific Selectra Pro	Vital Scientific
Iron	Colorimetric without ppt.	Vital Scientific Selectra Pro	Vital Scientific
Lactate	Colorimetric - Lactate oxidase	Vital Scientific Selectra Pro	Vital Scientific
LD (LDH)	L to P, IFCC	Vital Scientific Selectra Pro	Vital Scientific
LDL-Cholesterol	Other direct methods	Vital Scientific Selectra Pro	Vital Scientific
Lipase	Roche Colorimetric	Vital Scientific Selectra Pro	Vital Scientific
Lithium	Spectrophotometric	Vital Scientific Selectra Pro	Vital Scientific
Magnesium	Xylidyl Blue	Vital Scientific Selectra Pro	Vital Scientific
Phosphate, Inorganic	Phosphomolybdate UV	Vital Scientific Selectra Pro	Vital Scientific
Potassium	Ion Selective Electrode	Vital Scientific Selectra Pro	Vital Scientific
Protein, Total	Biuret reaction end point	Vital Scientific Selectra Pro	Vital Scientific
Sodium	Ion Selective Electrode	Vital Scientific Selectra Pro	Vital Scientific
TIBC	Direct Colorimetric	Vital Scientific Selectra Pro	Vital Scientific
Trig Total	Lipase/GPO-PAP no correction	Vital Scientific Selectra Pro	Vital Scientific
Urea	Urease, kinetic	Vital Scientific Selectra Pro	Vital Scientific
Uric Acid (Urate)	Uricase perox. no ascorb. ox.	Vital Scientific Selectra Pro	Vital Scientific