



# Biosensor selection guide

| Biosensor | Description                     | Intended use <sup>1</sup> | Application  | Octet system quantitation dynamic range <sup>2</sup> |  |   |                   | Regeneration   |
|-----------|---------------------------------|---------------------------|--|--|--|---|-------------------|--|
|           |                                 |                           |  | Octet QK   | Octet QK <sup>®</sup> /QK384/<br>HTX ≥32 channel | Octet RED96e/ RED96/<br>RED384/K2/<br>HTX 8 or 16 Channel | BLItz             |  |
| APS       | Aminopropylsilane               | K                         | Binding measurement of lipids, liposomes, hydrophobic proteins that don't have other methods of surface attachment       | N/A  | N/A  | N/A   | N/A               | Protein and analyte dependent, users should validate their own assays                            |
| AR2G      | Amine Reactive 2G               | K                         | Covalently immobilizing any molecule with a terminal amine group for all kinetic analyses                                | N/A  | N/A  | N/A   | N/A               | Protein dependent  |
| SSA       | Super Streptavidin              | K                         | Small molecule and fragment analyses only, should not be used for large molecule measurements                            | N/A  | N/A  | N/A   | N/A               | Analyte compounds can be washed off during dissociation in buffer since most have fast off-rates |
| AHC       | Anti-Human Fc-Capture           | K                         | Capturing human IgG's or human Fc-fusion proteins for kinetic analysis with various analytes                             | N/A  | N/A  | N/A   | N/A               | Yes for K  |
| AMC       | Anti-Mouse Fc-Capture           | K                         | Capturing mouse IgG's or mouse Fc-fusion proteins for kinetic analysis with various analytes                             | N/A  | N/A  | N/A   | N/A               | Yes for K  |
| SA        | Streptavidin                    | K                         | Immobilizing biotinylated molecules for all kinetic analyses   | N/A  | N/A  | N/A   | N/A               | Protein dependent  |
| SAX       | High Precision Streptavidin     | Q and K                   | Immobilizing biotinylated molecules for high precision quantitation and kinetic measurements                             | Protein dependent                                    | Protein dependent                                | Protein dependent   | Protein dependent | Protein dependent  |
| SAX2      | High Precision Streptavidin 2.0 | Q and K                   | Immobilizing biotinylated molecules for high precision and reproducible kinetic characterization and custom quantitation | Protein dependent                                    | Protein dependent                                | Protein dependent   | Protein dependent | Protein dependent  |

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|           |                                   |                           |   | Octet QK   | Octet QK <sup>2</sup> /QK384/<br>HTX ≥32 channel               | Octet RED96e/ RED96/<br>RED384/K2/<br>HTX 8 or 16 Channel      | BLitz   |                     |
| AHQ       | Anti-Human IgG Fc                 | Q                         | Quantitation measurements of human IgG's or human Fc-fusion proteins  | 1–100 µg/mL  | 0.5–100 µg/mL  | 0.025–200 µg/mL  | 0.25–1000 µg/mL                               | No for Q            |
| AMQ       | Anti-Murine IgG Fv                | Q                         | Quantitation measurements of mouse IgG's or mouse F(ab') <sub>2</sub>   | 1–100 µg/mL  | 0.5–100 µg/mL  | 0.1–200 µg/mL  | 0.5–4000 µg/mL                                | No for Q            |
| HIS1K     | Anti-Penta-HIS                    | Q and K                   | Capture of His-tagged proteins for kinetic analysis with target analytes. Quantitation of His-tagged proteins in buffer, media or diluted lysate. Sensor is pre-coated with Penta-His antibody from Qiagen. | Not tested   | Protein dependent, typically 0.25–200 µg/mL*                   | Protein dependent, typically 0.25–200 µg/mL*                   | Protein dependent, typically 10–200 µg/mL*    | Yes for K           |
| HIS2      | Anti-HIS                          | Q                         | Quantitation of HIS-tagged proteins in crude matrices or buffer or column eluent (pre-coated with anti-His Ab from MBS)   | Protein and protocol (time and rpm) dependent, 0.1–200 µg/mL** | Protein and protocol (time and rpm) dependent, 0.1–200 µg/mL** | Protein and protocol (time and rpm) dependent, 0.1–200 µg/mL** | Protein dependent, typically 0.1–200 µg/mL**  | Protein dependent   |
| ProA      | Protein A                         | Q                         | Quantitation of IgG's of various species including human  | 1–500 µg/mL  | 0.1–700 µg/mL  | 0.025–2000 µg/mL   | 0.5–4000 µg/mL                                | Yes                 |
| ProG      | Protein G                         | Q                         | Quantitation of IgG's of various species including human  | 1–500 µg/mL  | 0.1–700 µg/mL  | 0.025–2000 µg/mL   | 0.5–4000 µg/mL                                | Yes                 |
| ProL      | Protein L                         | Q                         | Quantitation of IgG's of various species via the kappa light chain  | 1–500 µg/mL  | 0.1–700 µg/mL  | 0.05–2000 µg/mL  | 0.5–2000 µg/mL                                | Yes                 |
| FAB2G     | Anti-Human Fab-CH1 2nd Generation | Q and K                   | Kinetic analysis of human Fab fragments and IgG with target antigen, Fc receptors, or other analytes. Quantitation of Fab and IgG.  | Not tested   | Analyte dependent, typically 0.5–1000 µg/mL                    | Analyte dependent, typically 0.5–1000 µg/mL                    | Analyte dependent, typically 0.5–1000 µg/mL   | Yes for Q and K     |
| GST       | Anti-GST                          | Q and K                   | Quantitation of GST-tagged proteins, direct capturing of GST-tagged proteins for kinetic analyses with analytes   | Not tested   | Protein dependent, typically 0.1–2000 µg/mL                    | Protein dependent, typically 0.1–2000 µg/mL                    | Protein dependent, typically 0.5–1000 µg/mL** | Yes for K, no for Q |
| NTA       | Ni-NTA                            | Q and K                   | Quantitation of HIS-tagged proteins in buffer or diluted matrix, capturing of HIS-tagged proteins for kinetic analyses with various analytes  | Not tested   | Protein dependent, typically 0.5–1000 µg/mL                    | Protein dependent, typically 0.5–1000 µg/mL                    | Protein dependent, typically 0.5–1000 µg/mL   | Yes for K, no for Q |

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| GlyS      | Sialic Acid Screening Kit        | Q                         | Relative screening of sialic acid in crude or purified cell culture samples | Sample dependent                                     | Sample dependent                                 | Sample dependent  | Sample dependent                          | No for Q     |
| HCP       | Anti-CHO HCP Detection Kit       | Q                         | High sensitivity assay kit for generic analyses of CHO HCP                  | N/A  | Sample dependent, typically 0.5–200 ng/mL        | Sample dependent, typically 0.5–200 ng/mL                 | Sample dependent, typically 0.5–200 ng/mL | No for Q     |
| RPA       | Residual Protein A Detection Kit | Q                         | High sensitivity assay kit for analyses of residual Protein A               | N/A  | Sample dependent, typically 0.1–25 ng/mL         | Sample dependent, typically 0.1–25 ng/mL                  | Sample dependent, typically 0.1–25 ng/mL  | No for Q     |

<sup>1</sup>Biosensors are developed, manufactured, and QC is performed for their intended applications; using biosensors outside their intended purpose requires user validation

<sup>2</sup>Dynamic range might vary for different background conditions, numbers listed are guidelines only and are based on testing of intended analyte molecules, users should validate range for their own samples

\*Assay conditions and dynamic range should be validated

\*\*Users should validate their assay



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