Octet® SPR Sensor Chip Selection Guide
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| COOH1       | 19-0053 | Planar carboxylated oligoethylene oxide | Low      | Amine coupling        | Protein–protein or other large molecule kinetic assays when lectin binding may occur, or dextran alternative is desired. | - Immobilization of targets without derivatization or tags  
- Produces a highly stable covalent bond  
- Can be used to immobilize affinity ligands to create additional capture chemistries (i.e. Protein A, antibodies, etc.)  
- Effective over a wide pH range |
| CDL        | 19-0127 | Thin, low density carboxymethyl dextran layer | Medium   | Amine coupling        | Measuring accurate kinetics of protein–protein or other intermediate (>1 kDa) to large (>25 kDa) molecule interactions. | - Immobilization of targets without derivatization or tags  
- Biocompatible with a range of molecules  
- Produces a highly stable covalent bond  
- Can be used to immobilize affinity ligands to create additional capture chemistries (i.e. Protein A, antibodies, etc.)  
- Effective over a wide pH range |
| CDH        | 19-0128 | Carboxymethyl dextran three-dimensional hydrogel surface with carboxylic acids | High     | Amine coupling        | Small molecule–protein interactions, fragment screening, or other target interactions with low binding activity. Assays where high capacity is needed. | - Immobilization of targets without derivatization or tags  
- High-capacity carboxymethyl dextran surface, ideal for immobilizing a large amount of target for small molecule and fragment analysis  
- Biocompatible with a wide range of molecules  
- Produces a highly stable covalent bond  
- Effective over a wide pH range |
| PCH        | 19-0129 | Non-dextran polycarboxylate hydrogel surface | High+    | Amine coupling        | Small molecule (<1 kDa)–protein interactions, fragment screening, or other target interactions with low binding activity. Assays where high capacity is needed and/or dextran alternative is desired. | - Immobilization of targets without derivatization or tags  
- Highest capacity surface, ideal for immobilizing targets for small molecule and fragment analysis  
- Provides an alternative to dextran surface  
- Produces a highly stable covalent bond  
- Effective over a wide pH range |
| HisCap     | 19-0058 | Non-dextran polysaccharide three-dimensional surface with carboxylic acids pre-immobilized nitrilotriacetic acid (NTA), regenerable with imidazole, EDTA | High     | Capture via His tag   | Small molecule or peptide kinetics with His-tagged protein ligands. Large molecule kinetic assays with His-tagged proteins. | - High ligand capture capacity for low molecular weight analytes such as fragments  
- Stable baseline, important for accurate kinetic analysis  
- Provides a convenient means of directed capture of His-tagged proteins  
- Can be regenerated using a variety of conditions, such as imidazole, SDS, or EDTA  
- Suitable alternative for proteins that are not amenable to amine coupling |
| SADH       | 19-0130 | Streptavidin immobilized in three-dimensional carboxymethyl dextran hydrogel | Medium-High | Capture via biotin    | Intermediate (>1 kDa) to large (>25 kDa) molecule kinetics with biotinylated ligands. | - Highly efficient capture over a wide pH range  
- Requires low quantities of ligand (nanomolar concentrations)  
- Single step capture  
- Surface has lower electrostatic charge compared to amine coupling sensors |